

Section B: DEIS Review Comments

Table of Contents

City of Renton.....	B-1
Muckleshoot Indian Tribe.....	B-8
Puget Sound Water Quality Authority.....	B-19
Seattle Water Department.....	B-20
Army Corps of Engineers	B-23
State of Washington Department of Ecology	B-28
State of Washington Department of Fish and Wildlife.....	B-29
Boeing Commercial Airplane Group.....	B-33
Bob Dixon.....	B-35
Regina Gilmore.....	B-38
Hedges & Roth Engineering	B-40
Messrs. Curtis, Lorenz, Lyons, and Tonkin.....	B-47
Kim Odstreil.....	B-49
Donald Anderson	B-50
Miles Langdahl	B-52



Earl Clymer, Mayor

CITY OF RENTON
Planning/Building/Public Works Department

RECEIVED

APR 21 1995

April 18, 1995

Roz Glasser, Project Manager
King County Surface Water Management
700 5th Avenue, Suite 220
Seattle, Washington 98104

**KING COUNTY
SURFACE WATER MANAGEMENT DIVISION**

**SUBJECT: CITY OF RENTON DESIGN TEAM COMMENTS ON THE
DRAFT CEDAR RIVER BASIN PLAN AND
DRAFT ENVIRONMENTAL IMPACT STATEMENT**

Dear Roz,

1 The comments provided below summarize issues and concerns that City of Renton staff have identified in their review of the Draft Cedar River Basin Plan and DEIS. Note that staff's comments provided herein are based on cumulative, but periodic experience with the plan as members of a City Design Team. The Design Team was formed to facilitate the City's review of planning process-generated products. However, neither the City Administration, nor the City of Renton City Council have reviewed this plan in any significant detail. As such, the City's current position on certain issues may be subject to change and endorsements of certain facets of the plan or criticisms of others, as expressed below, may not be a true indication of the City's final position on such issues or on the plan as a whole.

Comments expressed below will require some additional work and consideration by the WMC and SWM staff. To the maximum extent possible, the City of Renton will supply specific language that can be inserted into the Plan to address these comments. However, the submittal of such information, now being developed by staff, will have to come at a later date. Although staff is currently working on formulating specific responses, detailed editorial substitutions will not be available until the second week of May in order to obtain administrative concurrence. In the meantime, however, City of Renton Water and Surface Water Utility staff will be available to meet with you and SWM to discuss these issues in more detail.

Also, thank you in general for the opportunity to comment on the Draft Plan. Although the comments described below could be considered substantial, even overwhelming, I am certain that attention to these issues is necessary because of their significance to the effectiveness of the Plan. The issues that are identified below have been highlighted in discussions with City administrators over the last few months. These issues will need to be adequately addressed in the Basin Plan if administrative and City Council concurrence will be requested from the City of Renton prior to Plan adoption.

B-1

Flooding

EIS

- 2 It should not be perceived that the flooding on the airport is avoidable [in a do-nothing scenario]. Seattle has to do a better job of releasing water, the COE has to dredge to navigable river standards, and the airport has to be protected. Flooding didn't begin until the dredging stopped. (p3)

The airport is too expensive to be moved. (p3)

- 3 (The Basin Plan and the DEIS need to recognize the lower Cedar River as an ACOE-designated navigable waterway.)

Mention the Renton Municipal Airport as a major transportation facility in the basin (p19 and p25). Flooding has a great impact on Boeing and the airport which is the 5th busiest in the state. Upstream levees have had a major affect on flooding in Renton. Levees have straightened and narrowed the river channel along most of its length below Landsburg. These and other changes have increased the rate at which sediment is transported down to Renton and deposited in the lower river channel and decreased the availability for storage of sediment in point bars and other areas throughout the river's length.

- 4 The transportation element of the City of Renton Comprehensive Plan is not discussed. (p41) The FEIS should discuss relevant portions of the Transportation element, especially those dealing with the Airport, environmental impacts, and maintenance.

Draft Basin Plan

- 5 Urban Stormwater Initiatives need to be developed and discussed in the plan. Efforts to accomplish this item are currently being scheduled. The City will provide specific recommendations shortly, in conjunction with County staff for Team and WMC review.

- 6 The Plan needs to directly address the issue of the role of Seattle Water Department facilities in regulating flood events on the Cedar River. It is acknowledged that the Dam and diversion provide a flood reduction benefit over a range of Cedar River flows, however, such benefits are limited by competing management demands such as water supply and power generation. It has been documented that the Seattle facility could provide an additional flood control benefit by reducing some flood peaks by 25% or more if the dam were operated in a way that was different from its stated O/M plan. It is also known (admitted by SWD staff) that the dam is also not currently operated according to the O/M plan, at least in the January-April period. (In fact, in a manner that is not likely to optimize flood control.) Since the O/M plan for the dam is recognized to be neither an optimized plan nor an acceptable plan for springtime operations, the O/M plan should be reviewed - and revised if necessary - with the following objectives:

- 6
- Look at a variety of operating scenarios, from maximization of flood control protection to maximization of storage for both M&I supply and power demands. Look at scenarios first which would not require dam modification, then look at feasible dam modifications and the relative costs and benefits of each.
 - Analyze each scenario first with respect to flooding benefit alone and then for other costs/benefits, to include: lost power revenues, increase in likelihood of missing water supply targets, potential max./min. supply deficits (vol.), costs of necessary modifications, if req'd.
 - Include downstream jurisdictions (King County, the City of Renton, the Corps of Engineers) in the analysis process (development and analysis of alternatives, preparation of results, conclusions and report). Review the conclusions and recommendations with other agencies (ie., Fisheries and the Muckleshoot Indian Tribe) prior to finalization. Present the final report as a group to the City of Seattle, City of Renton, and King County Councils. Consider amending the Basin Plan to include the report. Possibly the report could be completed and incorporated in the plan as part of the respective council review and adoption processes.

The analysis described above could be accomplished by City of Seattle staff using the SWD SEAFM model. The analysis could proceed with the involvement of a technical review committee comprised of staff from the jurisdictions and agencies mentioned above and party to the Basin Plan. In the event that SWD is not interested in either 1) using the SEAFM model or 2) participating in the study at all, the study could still be conducted as an investigative effort by the remaining sponsors using the SSAAR model prepared by the Army Corps of Engineers for the Lower Cedar River Flood Control Feasibility Study.

While the analysis described above would be too lengthy to be developed prior to further WMC development of the Plan, a proposal for the study should be written into and required by the Basin Plan. The objectives and schedule for accomplishing the study should be included in the Basin Plan. At a minimum, the write-up *must* have written, quantifiable goals for the completion of a flood control assessment of the dam and predetermined deadlines for reaching study milestones. The technical committee should regularly brief both the Basin Plan WMC and the Cedar River Watershed Council on study progress and schedule.

Water Quality and Water Supply Issues

EIS

No comments at this time.

Draft Basin Plan

- 7 The Water Utility has several major comments about the Plan, mostly relating to omissions, as the Plan has not properly addressed several issues that are important to the Water and Surface Water Utilities and the City as a whole. Areas of concern are outlined below; the City is developing specific language for inclusion in the Plan on these issues. This language will be made available to the County (and the other parties to the Plan) shortly.

(Background) Additional information should be provided to describe the City's downtown aquifer(s), their role in providing water supply to residents of the greater Renton area, the influence of the Cedar River on these supplies, and the influence and effect of changes in the City's recharge area.

- 8 (Noted Plan Deficiencies) The Basin Plan needs to recognize existing current processes that are dealing with outside issues that are extremely relevant to the plan. Examples of such processes include: water rights adjudications, Seattle's HCP, Seattle's IFIM study, Seattle's Revisions of existing instream flow targets, normal reviews of Seattle's Chester Morse Dam and Landsburg Diversion facilities by Ecology's Dam Safety Division, ongoing Renton studies to assess direct influence of the river on water supply aquifers, County, State, and Federal groundwater studies (ie., County-wide studies, USGS MODFLOW study). While it would be outside the scope of the Basin Plan to comment directly on the outcome or direction of these processes, it is appropriate for the Basin Plan to note: 1) how these processes integrate with development of the plan and 2) how one or more potential outcomes of these processes may affect the plan's potential to realize stated goals and objectives. Where these processes are either ongoing or completed, either a brief summary of the current findings/conclusions, or the scope of the study should be summarized. (Example: the current Cedar River Hydrogeologic Study - part of the Non-Point Action Plan investigative effort - is described in the Plan, but not discussed sufficient detail. This effort should be discussed in the context described above.) Concerns about the protection of existing potable water supplies need to be provided and highlighted in the plan.

- 9 (p.1-5 and 2-18) Municipal groundwater supplies are discussed, but no recommendations are provided for their protection. The City will develop specific recommendations where it is felt these are needed, and will determine which of the current recommendation descriptions need to be modified either to improve their effectiveness for protecting municipal water supplies or to eliminate apparent conflict with existing protection efforts or policies. In addition, some information

- 9 about private registered and non-registered (illegal) wells should be provided in the Plan with respect to their likely influence on seasonal water quantity and quality within the basin as a whole, and on our local ability to maintain the quality of local aquifers, tributaries, mainstem flows and municipal (ie., Renton) supplies. Renton will provide a summary of information on-hand to be included in the plan. King County and other agencies (SKCHD, DOE, etc.), should be requested to also provide similar information for input to the Plan.
- (p. 1-10) See note about currently planned hydrogeologic study, noted above.
- Specific suggestions will be made toward improving the Plan's presentation of, and consistency with, the regulatory requirements of the City's Aquifer Protection Ordinance and the County's Critical Area Recharge Ordinance. Specific suggestions will be made such as: source controls for roadway drainage, zoning for small generator hazardous materials businesses, and impervious area limitations for areas that can be identified as "critical for recharge".
- 10 (p. 2-2 pgh 5, p. 2-4, and p. 2-7) The Draft Basin Plan mentions that the quality of drinking water in Renton is potentially at risk. The City will supply information that discusses elements of risk to Renton's water supply including: potential loss of recharge due to impervious surfaces, non-point pollution (pathogens, metals, nitrates, etc.), and low flow conditions and their relationship to water quality and habitat availability (see additional comments below.) The County should qualitatively assess and discuss the potential effects of future development of impervious surfaces, forest removal, and other significant land use practices on mainstem and tributary low flows. (ie., answer the question: based on hydrologic assumptions used for future conditions modeling and known patterns of groundwater sources and sinks in the basin, how will low flows likely be effected?)
- 11 The Basin Plan should recognize and state more clearly that Seattle Water Department management of the upper watershed is *the most important* factor affecting the quality and quantity of Cedar River mainstem flows in the lower river basin.
- 12 The Basin Plan needs to address the question of low flow impacts in combination with the likely water quality impacts of urbanization on tributary and mainstem water quality during the summer and fall periods. How might water quality/quantity be affected in the urbanizing areas downstream of Seattle's Landsburg diversion in the future.
- 13 The relative water quality of water leaving Seattle-controlled areas should be qualitatively evaluated in relation to measured and estimated contributions along the tributaries and mainstem below Landsburg. Of significant concern: significant animal concentrations exist in the upper basin. How much fecal coliform and cryptosporidium is normally measured in the baseflow and stormwater discharges from the upper watershed? This information is necessary in order to qualify the absolute and proportional contributions from the lower basin for these and other important parameters.

- 14 Minimum instream flows need to be addressed in the Plan from the perspective that the Plan has made a significant commitment to learn and gather information about the state of existing aquatic habitat in the basin. Having done so, the Plan is in a position to comment on the amount of water (flows) on the mainstem and the tributaries that is required to serve the species that are utilizing selected habitats in the lower basin at various times of the year. The plan should address this issue, assess information gathered in the planning process, introduce the findings of concurrent processes (ie., Seattle HCP and IFIM) and address the issue of whether or not there is sufficient flow in these habitats, both currently and in the foreseeable future. In conjunction with the Basin Plan's goals to maximize the opportunity for diverse aquatic species to use habitats in the basin and to plan habitat improvements, the Plan should address the question of whether sufficient flow is currently provided to these habitats during critical periods of the year, and to what extent existing and planned habitats would be (theoretically) improved or degraded with incrementally more or less flow. Qualitative assessments should be made for several species, based on available information. The assessment should include but not be limited to sockeye, steelhead, coho, chinook, and possibly smelt. Also address these issues in the context that Seattle does not currently maximize its total potential water right withdrawal at Landsburg. What would be the incremental cost and benefit of providing additional water (to improve habitat conditions in the lower basin). Would providing additional flows during critical parts of the year provide immediate benefit to existing fisheries? Would this represent an improved short-term benefit that would be preferable and more cost-effective than expenditures to provide structural habitat improvement such as through other current Basin Plan recommendations?

Programmatic Recommendations

EIS

No comments at this time.

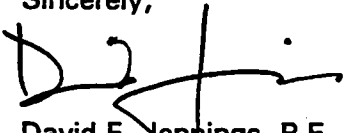
Draft Basin Plan

- 15 Additional information needs to be provided about implementation priority and costs, and jurisdictional responsibility for the various Capital improvement project, program, and regulatory recommendations. To what extent have administrative costs been considered in the assigned costs identified for each recommendation? Some additional explanation in the Plan is required. To what extent will new staff be required to implement the recommendations. A timeline for Plan implementation should be prepared, based on existing commitments of staff and budget, and the availability of future resources. The commitment of King County, Renton, and other parties to the Plan to invoke Plan recommendations should be discussed in light of annexations and competing County-wide priorities. These issue(s) should be discussed at the WMC.

Design Team Comments, DCRBP and DEIS
April 19, 1995
Page 7

Thank you again for this opportunity to comment on the Draft Basin Plan and DEIS.
Please call me if you have any questions, concerns, or need additional information at
277-6205.

Sincerely,

A handwritten signature in black ink, appearing to read 'D. E. Jennings', written over a horizontal line.

David E. Jennings, P.E., Project Manager
Surface Water Utility

H:DOCS:95-31311:DEJ

April 14, 1995

Roz Glasser, Project Manager
King County Surface Water Management
700 - 5th Avenue, Suite 2200
Seattle, Washington 98104

RE: Cedar River Draft Basin and Nonpoint Pollution Action Plan and Draft Environmental Impact Statement

Dear Ms. Glasser:

- 16- Thank you for the opportunity to review the Cedar River Draft Basin and Nonpoint Pollution Action Plan and Draft Environmental Impact Statement. The Plan proposes a comprehensive watershed management approach for guiding development, reducing flood damage, and conserving natural resources including dwindling populations of sockeye, coho and chinook salmon and steelhead. Muckleshoot Tribe Fisheries staff have reviewed this document, and, in general, can support the Plan's goals for the Basin. As the following recommendations are incorporated into this document, impacts from future development will be minimized and specific areas of existing damage will be ameliorated. Particular concerns regarding concepts, wording or changes to specific projects are listed in Attachment I (Draft Environmental Impact Statement) and Attachment II (Draft Basin and Nonpoint Pollution Action Plan). Issues of particular importance to the Tribe include:
- 17- **Cedar River Watershed Council:** It is our hope that King County Surface Water Management will incorporate our suggestions regarding the structure and role of the Cedar River Management Council in protecting the basin's resources. These suggestions evolved during our February 28, 1995 meeting at Tribal offices; please contact Chantal Stevens if you require additional information regarding them.
- 18- **Renton Reach Flood Damage Reduction Study:** Although dredging has been the preferred method of dealing with accumulation of sediment historically, other alternatives must be considered and equally acknowledged by this Plan. Concerns regarding impacts to smelt and sockeye fisheries must be addressed while determining the optimal solution to the present Renton Reach problem.
- 19- **Fisheries Production Goals:** Washington Department of Fish and Wildlife, Muckleshoot Tribe, the National Marine Fisheries Service and U.S. Fish and Wildlife Service set fisheries production goals; it is not a public process. Plan policies addressing this issue are undergoing review by Muckleshoot Tribal staff; additional comments will follow.
- 20- Additional concerns of Tribal staff include proposed R/D standards, the impact of the Ravine Protection Standard on tributary groundwater recharge and the term "cooperating entity". Incorporation of language presented in Attachments I and II will address these concerns.
- 21- A healthy Cedar River watershed is essential to the cultural and economic future of the Muckleshoot Indian Tribe. Tribal staff looks forward to working with you to develop and implement the Cedar River Basin and Nonpoint Action Plan, a critical element in the protection of valuable fisheries resources. Feel free to contact me if you require additional information regarding these comments.

Sincerely,

Leslie J. Groce
Environmental Planner

**Attachment I
Cedar River Draft Environmental Impact Statement
Muckleshoot Tribe Fisheries Staff Comments
April 14, 1995**

FACT SHEET

- 22 | **Page 1, Brief Description:**
"This is water quality pollution and aquatic habitat degradation..."
- 23 | **Page 1, π 3**
"The Cedar River basin contains resources of local, regional, and statewide, and international significance"
- 24 | **Page 1, Last paragraph**
Goals: The resources to be protected and/or"
- 25 | **Page 3, Tentative date for implementation**
Work on several of the projects outlined in the Cedar River Basin Plan have already been implemented, so a commencement date of Spring 1996 is questionable.
- 26 | **Executive Summary**
Page 1, Part I, A. Plan Context
"The Cedar River Basin The 1990 Growth Management Act reduction, and identify, protect and enhance fish and wildlife habitat areas...."
- 27 | **Page 3, π 1**
"willing sellers" - It is important to clearly identify the impact of this plan on property owners in the floodplain. For example, after the next flood event will agencies that previously provided economic relief for flooded homes again provide it - OR will there be some additional incentive to encourage these people to sell. Has this Plan made it less likely that homes in the floodplain will be insured? This issue was discussed during our 4/6/95 Watershed Management Committee meeting.
- 28 | **Page 11, Part II. Introduction, C. How to Use This Document, Part IV. Environmental Impact Analysis, π 2**
"~~Synergistic~~ Cumulative impacts are those that result from the interrelationship of a number of actions, such as the improvement of aquatic habitat resulting from ~~a number of retention/detention ponds in a single basin together with implementation and maintenance of best management practices, zoning restrictions and~~ other land use regulations to reduce nonpoint pollution"
- Synergistic impacts would be those where the impact from the group of actions is greater than would be expected from the sum of the individual actions. That is not what has been described here.
- Aquatic habitat improved by R/D ponds? Tribal staff have presented anecdotal evidence of the inadequacy of R/D ponds in protecting fish in King County streams. See Page 16, Existing Conditions, Tributary Subbasin Flooding.
- 29 | **Page 16, Part IV. Environmental Impact and Alternatives Analysis. 2. Existing Conditions, Tributary Subbasin Flooding**
This paragraph appears to admit that current R/D pond configurations are not working. If so, change pond configuration, and/or provide mitigation or compensation for resultant losses of fisheries resource.
- 30 | **Page 17, Part IV. Environmental Impact and Alternatives Analysis. 3. Impacts of Flood Hazard Reduction Plan Elements, Earth**
Aside from never building in the floodplain, the removal of housing from the floodplain is, in the long run, the most cost-effective method of avoiding flood damage.
- 31 | For BW 18, how will the Tributary Subbasin Retention/Detention Standards address impacts on salmonids caused by increased duration of flood flows?

- 32 | BW 20, Infiltration as a Stormwater Mitigation Treatment, is a sensible method of reducing risk of erosion and sedimentation from new development, and should be the preferred method.
- 33 | **Page 18, Part IV. Environmental Impact and Alternatives Analysis. 3. Impacts of Flood Hazard Reduction Plan Elements, Water**
Groundwater recharge in the tributaries will be negatively impacted by the Ravine Protection Standard, which allows piping of stormwater generated by new development into mainstem Cedar River unless predevelopment infiltration rates are maintained.
- 34 | BW 25 is listed as Infiltration as a Stormwater Mitigation Treatment - BW 25 is not part of the proposed Plan.
- 35 | **Page 19, Land and Shoreline Use:**
The Plan's preferred actions A substantial amount of shoreline ... to protect public resources (anadromous fisheries spawning, summer rearing and overwintering areas, critical wildlife habitat areas, etc.)."
- 36 | **Page 19, Fish and Wildlife: π 1**
Implementation of the Plan's flood hazard reduction measures will increase available fish and wildlife habitat in tributary areas at the same time peak flood flows in the tributaries are increasing substantially (p.16, Tributary Subbasin flooding) - how?
- 37 | **Page 19, Fish and Wildlife: π 2**
"Two Plan elements consist of ongoing studies ... to reduce flood hazards in the lower Cedar. ~~by dredging the river mouth.~~"
Remove this language, since the sentence is complete without it and dredging is only one of (and the most environmentally damaging of) the alternatives being evaluated for reducing flood hazards in the lower Cedar River.
- 38 | **Page 21, Part IV. Environmental Impact and Alternatives Analysis (Cont.) B. Water Quality 1. Background**
The scope of existing water quality problems in the BPA HAS NOT BEEN exhaustively studied. If anything, Solomon's paper identified numerous areas where additional study is required, i.e., impacts of metals/toxics on fish in Renton Reach, differentiating water quality of upper watershed (above Landsburg) and populated lower watershed.
- 39 | **Page 27, Part IV. Environmental Impact and Alternatives Analysis (Cont.) C. Aquatic Habitat 1. Background, π 2**
Rewrite paragraph 2 to reflect that the Muckleshoot Tribe has comanagement responsibility (not "overlapping jurisdiction") with WDFW for the harvests of fish and wildlife in their Usual and Accustomed Areas, which encompasses the Cedar River Basin as well as most other waterbodies in King County.
- 40 | **Page 27, Part IV. Environmental Impact and Alternatives Analysis (Cont.) C. Aquatic Habitat 1. Background, π 3**
"Neither the state nor MIT have has direct jurisdiction"
- 41 | **Page 28, Part IV. Environmental Impact and Alternatives Analysis (Cont.) C. Aquatic Habitat 1. Background, π 2**
"In order to be effective A major concern of these agencies is that habitat management measures be consistent with their current fisheries management objectives, and that impacts from private and public actions be properly considered."
- 42 | **Page 28, Part IV. Environmental Impact and Alternatives Analysis (Cont.) C. Aquatic Habitat 2. Existing Conditions**
"1. Past human activities have Mainstem channel and floodplain habitats have has-been reduced by more than half. Urban development and conversion of forest lands to other uses have has-caused the loss and degradation"
- 43 | **Page 29, Part IV. Environmental Impact and Alternatives Analysis (Cont.) C. Aquatic Habitat 2. Existing Conditions**
"2. In spite of these impacts, the BPA still supports many populations of the most important fish and wildlife populations species in the County, and"
- 44 | To reflect current deflated populations in important species that inhabit King County and Cedar River. To provide a baseline, how do fisheries resources in Cedar River compare to those in the Green River?

45 | **Page 29, Part IV. Environmental Impact and Alternatives Analysis (Cont.) C. Aquatic Habitat 3. Impacts of Habitat Preservation and Enhancement Plan Elements, Earth**

In fact, even with enhancement projects, the natural tendency of the river will continue to move earth. However, there will be less impact to humans as the floodplain is bought out.

46 | **Page 30, Part IV. Environmental Impact and Alternatives Analysis (Cont.) C. Aquatic Habitat 3. Impacts of Habitat Preservation and Enhancement Plan Elements, Water**

"By definition, Plan elements

* Expand the areal extent and improve the functions¹ of wetlands functioning throughout the BPA: and...

* Improve spawning and rearing habitat (including stream hydrology) in all areas of the BPA"

47 | **Page 31, Part IV. Environmental Impact and Alternatives Analysis (Cont.) C. Aquatic Habitat 3. Impacts of Habitat Preservation and Enhancement Plan Elements, Land and Shoreline Use**

BW 24 must acknowledge that salmonid habitat within the Urban Growth Area can be just as important as habitat in other areas of the County.

48 | **Page 36, CA-5 and CA-6 [Groundwater protection]**

Piping of stormwater (BW 19) instead of infiltrating into the soil will result in depletion of groundwater in Cedar River tributaries. Therefore, the Plan is inconsistent with these policies unless predevelopment infiltration rates are maintained.

49 | **Page 38, NE 310 [stormwater control]**

"The Plan is very consistent: like for example, R 216 ~~this policy basically states~~ overall goals of the Plan for all areas outside the UGA."

50 | What/where is R 216?

51 | **Page 39, NE 314 - 329 [wetlands]**

"This is a The major reservation is that Plan implementation may not be sufficient to meet all of the Comprehensive Plan's laudable objectives, such as "no net loss" of wetland functions and values. NE 316"

Consider establishing a program similar to the Mill Creek SAMP process, where opportunities for enhancement of functions and values of important wetlands within the Basin have been identified, thereby addressing the "no net loss" issue basinwide, rather than site-by-site.

52 | **Page 41, City of Renton Comprehensive Plan (1995), Environmental**

Does the City of Renton have any written policies that reflect the common goal of the Cedar River Basin Plan to protect and restore fish, or is the goal just to protect fish habitat?

53 | **Page 45, King County Sensitive Areas Ordinance**

"The King County Sensitive Areas Ordinance The purpose of the SAO is ~~to protect the public interest in environmentally sensitive areas, such as wildlife habitat and unstable slopes~~ to implement the goals and policies of the Washington State Environmental Policy Act, RCW 43.21C, and the King County Comprehensive Plan which call for protection of the natural environment and the public health and safety by:

- A. Establishing development standards to protect defined sensitive areas;
- B. Protecting members of the public and public resources and facilities from injury, loss of life, property damage or financial loss due to flooding, erosion, landslides, seismic and volcanic events, soil subsidence or steep slope failures;
- C. Protecting unique, fragile and valuable elements of the environment including, but not limited to, wildlife and its habitat;
- D. Requiring mitigation of unavoidable impacts on environmentally sensitive areas by regulating alterations in or near sensitive areas;
- E. Preventing cumulative adverse environmental impacts on water availability, water quality, wetlands and streams;
- F. Measuring the quantity and quality of wetland and stream resources and preventing overall net loss of wetland and stream functions;
- G. Protecting the public trust as to navigable waters and aquatic resources;
- H. Meeting the requirements of the National Flood Insurance Program and maintaining King County as an eligible community for federal flood insurance benefits;

- 53 | I. Alerting members of the public including, but not limited to, appraisers, owners, potential buyers or lessees to the development limitations of sensitive areas; and
| J. Providing county officials with sufficient information to protect sensitive areas. (Ord. 10870 § 448, 1993).
| The SAO implements both the Comprehensive Plan....the Growth Management Act (GMA)....The SAO also implements the Growth Management Act (GMA), which specifically requires King County"
- 54 | **Page 47, Priority Habitat and Species, WDFW**
| "The state agency with responsibility for conservation of ~~the state~~ fish and wildlife resources has conducted"
- 55 | **Page 47, Instream Resources Protection Program (IRPP), Washington Department of Ecology**
| "The Washington Department of Ecology In essence, all affected parties¹⁰"
| Footnote 10: "The Muckleshoot Indian Tribe was not an active participant in the development of the 1979 IRPP."
- 56 | **Page 48, Instream Resources Protection Program (IRPP), Washington Department of Ecology**
| "Muckleshoot Indian Tribe supports maintenance of instream flows for reasons that are more directly supportive of Cedar Plan goals, namely protection of aquatic habitat. ¹¹"
| Footnote 11: "The Muckleshoot Tribe, with adjudicated rights to Cedar River fisheries resources, must be a party to any future resolution of these matters."

Attachment II
Cedar River Draft Basin and Nonpoint Action Plan
Muckleshoot Tribe Fisheries Staff Comments
April 14, 1995

Page 1-1

57 "2. The Cedar River and its tributaries While most of the habitat, ongoing development below Landsburg Dam continues to threaten many high-quality habitats.

In recent years, natural runs Other factors that may contribute include potential passage problems out of Lake Washington, adverse ocean condition"

Page 1-3

58 "2. PROTECT AND RESTORE AQUATIC HABITAT: Protect and restore natural salmon runs and other aquatic resources; where feasible, by protecting existing high quality habitat and restoring degraded habitats"

Even hatchery-produced salmon require high-quality rearing habitat at some stage of their life cycles.

Who determines "where feasible"?

When enhanced stormwater control measures can not adequately mitigate, allow for direct mitigation of stormwater impacts.

Page 1-3, last ¶

59 "The above actions should However, because aquatic habitat preservation and restoration are driven in large part by the federally guaranteed treaty rights of the Tribes and the desire of public agencies and citizen groups to restore anadromous fish runs to harvestable levels, it is also recommended that ~~natural and artificial~~ production goals for each species ultimately be"

Page 1-4, top ¶

60 "~~.... developed through a public process by the Washington Department of Fish and Wildlife, in concert with the Muckleshoot Indian Tribe and other affected tribes, the National Marine Fisheries Service, and U.S. Fish and Wildlife Service, and all other interested parties including local governments and conservation groups.~~"

Alternatively, remove this sentence, since this is the process currently in place.

Page 1-4, top ¶

61 Delete "One possible vehicle by such a process."

Page 1-4, second ¶

62 "Regardless of the method Because the ongoing an Integrated Landscape Management Planning, or a similar process may not be initiated until at least that time. Meanwhile, a limited number of habitat restoration projects ~~should~~ could be constructed and evaluated for fish use in order to assess the value of these efforts."

In fact, the Lake Washington Ecological studies are adaptive; participants will not need to wait until the end of the study to initiate projects to improve salmonid survival in the Lake.

Page 1-4, bottom ¶

63 "3. MAINTAIN WATER QUALITY: Widespread, individual activities... water quality problems in the lower Cedar River basin.

Page 1-4, bottom ¶

64 " * Enhanced stormwater control measures that would reduce erosion and flushing of pollutants;"

Does this approach apply only to new development, or will existing developments be retrofitted?

Page 1-5

65 "4. WATERSHED MANAGEMENT:

* Concentrate funding and implementation efforts on a "Core Plan" of the most"

Page 1-5

- 66 "This would be achieved by first which would represent interests of the public, private groups, and federally recognized tribes-tribal interests...."

Page 1-6, π 3

- 67 "Looking at these abandoned channels.... Mississippi valley"

Much property damage occurred during recent floods in the Cedar River, some as the result of failure of flood control structures. Provide these local examples of the damage caused by the use of structural techniques for controlling flooding.

Page 1-9, 2nd full π

- 68 "The types of land uses in the Cedar River basin Those areas farthest upstream have very little development, and the City of Seattle's watershed, above Landsburg Diversion Dam, is entirely undeveloped and *will remain so.*"

Will remain so by who's mandate, and for how long?

Page 1-10, 1st π

- 69 "To ensure that the responsible tribes, public agencies and the residents"

Page 2-1, 1st π

- 70 "The Cedar River basin provides According to the Seattle Water Department, the upper reaches of the river provides fully In addition, water supply lakes and their tributary lands continue to supply the lifeblood to a rich aquatic habitat system sustaining relatively diverse and abundant plant and animal life despite on-going human encroachment."

Page 2-1, 2nd π

- 71 "Salmon and trout The most-prevalent notable species of these fish are and construction of the Landsburg Dam. Prior to recent stock declines, this system had been particularly productive of sockeye salmon, supporting the largest run of this species in the contiguous United States."

Page 2-1, 3rd π

- 72 "In addition, the Cedar River basin The generally high quality and relatively abundant quantity of the river's discharge accelerated eutrophication after-the Metro"

Page 2-2, 2nd π

- 73 "The future of this legacy Past land-development practices and perennial competition for scarce water and funding all threaten"

Page 2-2, 4th π

- 74 Good description of the challenge ahead of us.

Page 2-3, Flood Damage Reduction CONDITIONS 2nd π

- 75 "Traditional attempts They also create high public maintenance costs. The cumulative impact on salmonids has been a considerable reduction in the availability of off-channel habitat and increases in mainstem water velocities."

Page 2-5, top π

- 76 ".... they replace is lost. These changes result in higher peak streamflows and longer peak flow durations, which cause increased flood and erosion damage, and impaired salmonid use and habitat"

Page 2-7, Renton Reach Flood Damage Reduction Study

- 77 "Preliminary analysis Sediment removal is the approach historically favored by such studies; other options include Review by affected parties and potential permitting agencies is ongoing."

Page 2-8, Mandatory Open Space Retention and Clearing Limits for Individual Lots

- 78 "Forest retentionmaintaining water quality, and protecting-reducing future impacts to aquatic resources...."

- 79 | **Page 2-8, Retention/Detention (R/D) Standards**
 "R/D facilities and improve water quality. R/D facilities must also be designed to prevent increased durations of excessive flows that result in increased stress levels, lower growth rates and increased displacement and mortality in salmonids. Four levels"
- 80 | **Page 2-9, Ravine Protection Standard**
 "This recommendation would provide strong protection for ~~strong protection for~~ Combinations of infiltration, piping of new stormwater discharges, and enhanced R/D facilities are recommended to achieve this goal."
 Tribal staff will oppose piping of new stormwater discharges. Prior to authorizing it use, SWM must determine the (immediate and cumulative) impacts of implementing this methodology on groundwater recharge, especially as it relates to the summer low flows of tributary streams, and the resultant impacts to salmonid habitat.
- 81 | **Page 2-9, Taylor Creek Realignment**
 Please change the wording for this project. This site is a known sockeye spawning area, with relatively high fish production already. If anything, this project is one small step towards reestablishing this regionally significant resource's high fish productivity.
- 82 | **Page 2-10, Aquatic Habitat Protection and Restoration CONDITIONS**
 "The Cedar River basin Along with Bear Creek, it ~~is~~ has been one of the major producers of wild coho salmon in the Lake Washington system...."
 There were 200 wild spawners in the entire Lake Washington basin last year (Lake Washington study).
- 83 | **Page 2-10, 2nd π**
 This year, with the peak over, the wild steelhead run is 22 fish (Lake Washington study).
- 84 | **Page 2-11, 2nd π**
 King County must implement and enforce its codes that prevent increased stormwater runoff from new development in Rock, Peterson and Taylor Creeks. If these do not perform properly, appropriate mitigation and/or compensation must be provided to address resource loss.
- 85 | **Page 2-11, final π**
 "Although the actions necessary prerequisites to ensure-reduce impacts to the river's long-term productivity...."
- 86 | **Page 2-12, RECOMMENDATIONS TO PROTECT AND RESTORE AQUATIC HABITAT**
 In fact, under federal and state law, if a resource is degraded, restoration is required.
- 87 | **Page 2-12, Basinwide Recommendations**
 "These basinwide ~~are~~ recommendations are for habitat protection"
- 88 | **Page 2-13, Mainstem Recommendations, Emergency Artificial Salmon Production and Lake Washington Study:**
 "Although Construction and operation can become effective. Critically low numbers of coho, chinook and steelhead will require some form of direct enhancement in the near future. Additional information This information is necessary such as permanent hatchery facilities, spawning channels, and extensive habitat restoration projects."
- 89 | **Page 2-14, Restoration of Rock Creek Base Flow:**
 SWM's Cedar River Basin staff should coordinate with SWM's Lake 12 staff who are developing a plan to treat the Lake with Sonar to control the milfoil in the Lake.
- 90 | **Page 2-19, GOALS AND STRATEGIES OF THE WATERSHED MANAGEMENT PROGRAM, 2nd π**
 "To guide watershed management This Council would be composed of agencies, affected tribes, and private and public interest groups...."
- 91 | **Page 3-1, Introduction, 1st π**

- 91 | As the subbasins are listed, add the names of the tributaries associated with each subbasin (Northern Tributaries, Southern Tributaries, Middle Tributaries). This adds clarity to the paragraph.
- 92 | **Page 3-6 through 3-8, Capital Improvement Projects**
What is the ordering of these projects? Prioritize, alphabetize or number them.
- 93 | In projects that create overwintering habitat (3102, 3103, 3104, 3106, 3108, etc.) will the projects be useable November through April, or only temporarily flooded. What is the projected increase in OHWM wetted perimeter and area?
- 94 | **Page 3-9, Renton Reach Capacity (MS 2):**
"The ongoing City of Renton/Army Corps of Engineers study and other affected agencies/entities."
- 95 | **Page 3-10, Salmonid Productivity (BW 7 and 8*):**
"These recommendations if the need for such a facility is demonstrated."
Who defines "need"; what is the definition?
- 96 | **Page 3-30, Madsen Creek CIPs (CIPs 3136 and 3137*):**
Also, improve access into Madsen Creek. According to MIT staff, there are access problems on the rising flood limb.
- 97 | **Page 3-31, Tributary 0304 Culvert Replacement at S.E. 180th Street (CIP 3132):**
The road has never flooded at this culvert, and the impacts to the upstream wetland need to be evaluated prior to this action, especially considering the scheduled expansion of 140th Avenue S.E.
- 98 | **Page 3-32, 3-41, etc., Increased R/D and Runoff Controls (BW 18*, 19, 20, and 21):**
Include in this discussion the possibility of requiring direct mitigation for stormwater impacts, especially when conflicting goals (control duration of flow using detention) result in inadequate protection of the fisheries resource.
- 99 | **Page 3-39, Taylor Creek, INTRODUCTION, first π**
How are increases in flood duration (in all streams in the Basin) addressed by this Plan?
- 100 | **Page 3-39, Taylor Creek, INTRODUCTION, last π**
"If fully implemented, in the future."
To put these statements in the proper perspective, provide information regarding the value of the current sockeye spawning areas in this creek.
- 101 | **Page 3-40 through 3-41, Livestock Keeping Practices (BW 11):**
"To reduce livestock-caused nonpoint water pollution will implement and extended livestock As part of this program, #11168; KC Chapter-Code Title 21A.30."
- 102 | **Page 3-57 Rock Creek, INTRODUCTION**
Although Rock Creek has some of the best habitat in the Cedar River Basin, it rates poorly for key pieces of large woody debris (LWD) and pools using Timber Fish and Wildlife (TFW) methodology.
- 103 | **Page 4-3, Capital Improvement Projects**
Please define "cooperating entities". Muckleshoot Tribe plans to participate in many projects to ensure that the fisheries resource is properly protected. When Tribal staff determines that this is not the case, the Tribe will pursue other avenues to accomplish this goal.
- 104 | **Page 4-12, Person Revetment Modifications**
It is too bad that the appropriate agencies could not avert this problem; maybe then there would be no need to discuss dredging and other alternatives for the Renton Reach.
- 105 | **Page 4-17, Wetland 36 (Francis Lake) Restoration**
Tribal staff recommends placement of salmonid eggboxes at this site.

- 106 | **Page 4-21, Tributary 0304 Culvert Replacement at S.E. 180th Street**
 "Although relatively Conversely, if flows are backed up, impact downstream habitat, erosion, and flooding."
 If the culvert is replaced, mitigation will be required even if there are no downstream floods.
- 107 | **Page 4-23, Wetland 16 Buffer Revegetation**
 Include in this project improved passage into Madsen Creek.
- 108 | **Page 4-26, 3140 Maxwell Road S.E. Flood Abatement and Taylor Creek Restoration**
 Recent MIT surveys indicate that there may be fish passage problems between RM 0.7 and 0.9. Evaluation of this constraint should be incorporated into this project.
 Include information regarding current sockeye spawning at this location.
- 109 | **Page 4-27, 3140 Maxwell Road S.E. Flood Abatement and Taylor Creek Restoration, π 5**
 "Finally, the bridge during moderate flows."
 If the bridge and culvert are replaced, mitigation will be required even if there are no downstream floods.
- 110 | **Page 4-30, 3151 Elevation of Lake Desire Drive S.E.**
 Somewhere in this plan, the recent development of the Lake Desire Management Plan should be acknowledged.
- 111 | **Page 4-42, BW 5: Small-Scale Watershed Restoration and Enhancement**
 The installation of salmonid egg boxes should be included in this list of small-scale projects.
- 112 | **Page 4-43, BW 6: Aquatic Resource Mitigation Bank Sites**
 The mitigation bank will be used for salmonid habitat restoration. Include opportunities for development of resting points along the stream corridor.
- 113 | **Page 4-47, BW 7: Artificial Salmonid Production Measures**
 "Recommendation: The following 3. Identify opportunities and criteria To achieve this, the Washington Department of Fish and Wildlife (WDFW), and the Muckleshoot Tribe, ~~King County, and other interested parties~~ should formulate a comprehensive fish management and habitat conservation plan for the Lake Washington Watershed....."
 Tribal staff requires additional time to provide suggested language changes to this paragraph.
- 114 | **Page 4-47, BW 7: Artificial Salmonid Production Measures**
 Include the use of egg boxes in streams as a short-term measure.
- 115 | **Page 4-51, BW 11: Livestock Keeping Practices**
 Add MIT to the list of Cooperating Entities.
- 116 | **Page 4-55, BW 13: Basin Evaluation**
 "King County SWM
 2. Annual review of completed capital projects to determine compliance with design specifications and ensure optimal performance.
- 117 | 3. Annual complication and review of U.S. Geological Survey (USGS), WDFW, Muckleshoot Tribe, City of Renton and Metro/WSDOE data on mainstem flows, fish returns, channel scour, stream juvenile outmigrant production, and water quality....."
- 118 | **Page 4-61, BW 18: Retention/Detention Standards**
 Tribal staff is not convinced that these standards address the direct cumulative impacts of increased flow duration on salmonid survival. In addition, direct downstream mitigation may be appropriate in some instances.
- 119 | **Page 4-69, Title**
 Table 4-3 Tributary R/D Requirements - Justification by Specific Catchment Continued

- 119 | **Page 4-73, BW 19: Ravine Protection Standard**
Recommendation: For those properties
2. Piping. Runoff from all development proposals”

Tribal staff cannot support piping of runoff from new development in the Basin until the impacts of these actions on tributary groundwater recharge have been fully investigated.
- 120 | **Page 4-78, BW 22: Mandatory Open Space Retention, Uses Permitted Outright: A. Passive Recreation**
“This may consist ~~do not conflict with the requirements of~~ are in full compliance with the SAO....”
- 121 | **Page 4-79, BW 22: Mandatory Open Space Retention, Conditional Uses:**
“~~C~~—Timber harvesting. Limited timber harvesting The management plan should ~~recognize~~ be in full compliance with the
underlying objectives Specific criteria to review ... SWM, DDES, Muckleshoot Tribe and the Washington State Department
of Natural Resources.....”
- 122 | **Page 4-91, Subarea Programmatic Recommendations, CEDAR RIVER MAINSTEM, MS 2: Renton Reach Capacity
205 Study**
“Recommendation: The goals
2. To minimize the frequency at which ~~dredging or other~~ maintenance must recur, and

These goals will be best achieved inand by establishing a ~~dredged~~-channel geometry that optimizes the transport....”

Destruction of the smelt spawning area within this reach has the potential of impacting the entire Lake Washington ecosystem.
- 123 | **Page 4-94, etc. Mainstem Habitat Enhancement and Restoration Sites, listed from upstream to downstream:**
Is it possible to place these on a map, to get a better picture of the proposals?



STATE OF WASHINGTON

PUGET SOUND WATER QUALITY AUTHORITY

PO Box 40900 • Olympia, Washington 98504-0900 • (206) 407-7300

RECEIVED

APR 26 1995

KING COUNTY
SURFACE WATER MANAGEMENT DIVISION

April 19, 1995

Roz Glasser
King County Surface Water Management Division
Department of Public Works
700 Fifth Avenue Suite 2200
Seattle, WA 98104

Dear Ms. Glasser:

124 Thank you for the opportunity to review the "Cedar River Draft Basin and Nonpoint Pollution Action Plan." The plan is an excellent example of how to combine the nonpoint watershed action plans under the Puget Sound Water Quality Authority's nonpoint rule, WAC 400-12, with the county's basin plans for flood control. This plan also represents a great model for how to incorporate habitat restoration and protection actions into the nonpoint watershed plans, as called for in the 1994 Puget Sound Water Quality Management Plan.

Congratulations to you, your staff and the committees on a job well done. We hope that the remainder of the review and approval process goes quickly, so that the county can move ahead with implementation. We look forward to eventually adding this plan to our list of completed watershed plans - to date, 22 out of 37 in the Puget Sound basin are now done and being implemented.

Sincerely,

Katherine Minsch
Katherine Minsch
Watershed Program Lead

cc: Bob Duffy, Ecology





Diana Gale, Superintendent
Norman B. Rice, Mayor

RECEIVED
APR 25 1995
KING COUNTY
SURFACE WATER MANAGEMENT DIVISION

April 21, 1995

Roz Glaser, Project Manager
King County Department of Public Works
Surface Water Management Division
710 Fifth Avenue
Seattle, WA 98104

Re: Review of King County Draft Basin and Non Point Action Plan and Draft Environmental Impact Statement

Dear Roz,

Attached are our comments on these documents.

125 Over the past 3 years the basin plan has evolved from an extensive problem statement to its current form. Aided by thorough field investigation and a complete agency and interest group consensus planning process, the plan has become an authoritative, accurate and detailed blueprint of the best possible management plan for the Cedar River Basin. We hope it will serve as the reference document and basis for many substantial public and private initiatives for many years to come.

The Water Department staff and I have come to respect your professional ability and your commitment to maximizing the aquatic resources of the watershed. We want to acknowledge the important contributions of Keith Hinman, Glenn Evans, Gino Lucchetti, Kate Roads, and Mary Jorgensen as well.

We look forward to the adoption and implementation of the plan. For any information on our comments please contact me or Michael Bonoff.

Sincerely,

for Nancy Davidson

cc: George Schneider

mb:kcplneis.

SEATTLE WATER DEPARTMENT

COMMENTS ON THE DEIS FOR THE DRAFT BASIN AND NON POINT ACTION PLAN

- Fact Sheet, page 4

The two references to the adoption of the plan more accurately would read,

"(on adoption as part of the *Seattle Water Department's Cedar Habitat Conservation Plan...*"

- Part IV, Flood Hazard Reduction, Background, 1. Construction of the Masonry Dam., page 15. Please consider the following modifications:

line 4; "provide municipal and industrial water *supply* to the City of ..."

line 8 after "critical flow periods", consider adding the meaning conveyed in this sentence;

However, Masonry Dam and the City's operation also provides flow augmentation during other periods to improve habitat; water quality in the lower reaches of the Cedar River.

line 8, change word "may" to *does*. (Note supportive text on 2-4, paragraph 4, first sentence of the basin plan)

- Page 16 of the section cited above, Mainstem Flood Flows. To have this point expressed more directly and to exclude a very minor factor (the Landsburg Diversion) consider reordering the sentence as follows:

Little change is expected in the peak flood flows on the mainstem aside from changes in the operation of the Masonry Dam.

- Instream Resource Protection Program, page 47

Line 5, the sentence that starts here incorrectly states that all affected parties negotiated the flows that have become codified.

WDFW, COE and SWD all had separate irreconcilable differences based on separate studies and data bases; SWD never agreed to the flows codified in WQFD 173-508. SWD has asserted that the codified flow regime was based on flawed and insufficient scientific information that any instream flow regime lacking formal agreement and support by SWD was junior to the City's water claim and therefore non-binding.

- Same section, page 48, references in the second paragraph to instream flow issues.

Since instream flows are being addressed in ongoing negotiations outside of the scope of the Masonry Dam Study,

we suggest the phrase ... *and related flow issues...* be deleted from the next to the last sentence.

COMMENTS ON THE DRAFT BASIN AND NON POINT ACTION PLAN

- Flood Damage Reduction, page 2-4

first paragraph, line 2; consider adding the following reason to make this point;

... the changes in the river bed during floods

paragraph 3, last sentence regarding the role of land changes.

We believe that the effect of land use changes, although less than that of the Masonry Dam, should not be minimized when considering the future.

- Subarea Programmatic Recommendations

MS1: Masonry Dam Study, estimated cost

We believe that \$66,000 is less than the cost needed to sustain this cooperative effort for 5 years.

Mason Dam Impact Analysis,

Change lead entity from SWM to SWD



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
SEATTLE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 3755
SEATTLE, WASHINGTON 98124-2255

*Keith
Roz. G.
File*

APR 19 1995

Planning Branch

RECEIVED

APR 20 1995

Mr. Jim Kramer, Manager
King County Surface Water Management
Department of Public Works
700 5th Avenue, Suite 2200
Seattle, Washington 98104

KING COUNTY
SURFACE WATER MANAGEMENT DIVISION
JIM KRAMER

Dear Mr. Kramer:

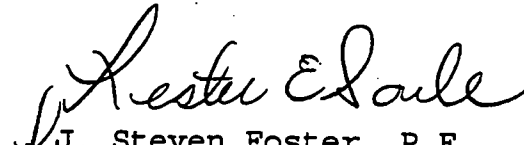
135 The Seattle District Corps of Engineers has completed a review of the Draft Cedar River Basin and Nonpoint Action Plan. In general we find the plan to be a well written, forward thinking document. Members of the Cedar Watershed Management Committee, and King County Surface Water Management staff in particular are to be complimented on their efforts. The majority of the comments raised during previous reviews of these documents have been addressed in the final version of the Basin Plan.

136 We support the creation of a Cedar Watershed Council, and want to be involved in this group in an advisory capacity. The Corps has a continuing interest in the future of the Cedar River for a number of reasons, including the operation of the Hiram A. Chittenden Locks and the Lake Washington Ship Canal, and the completion of several ongoing flood control studies within the basin. Further, the Corps may be able to assist in implementing portions of the Basin Plan through our environmental restoration and Planning Assistance to States authorities. We would welcome the opportunity to present to the Council ways that the Corps may be of assistance. The Corps also has a strong interest in any proposed changes to the operation of Chester Morse Dam. Any serious study effort of the dam should include the Corps.

-2-

Thank you for furnishing this document for our review. Individual staff comments are enclosed. Please contact Ms. Linda Smith at (206) 764-6721 if you have any questions or desire further information.

Sincerely,


J. Steven Foster, P.E.
Chief, Planning Branch

Enclosure

Draft Cedar River Basin Plan and Nonpoint Pollution Action Plan:
Staff Comments.

Civil Projects Section:

- 137 | Page 2-4. The Corps considers a 100 year recurrence flood event
to be 12,000 cfs based on our existing hydrologic data.
- 138 | P. 2-19. The Corps requests inclusion on the Watershed Council
in an advisory capacity.
- 139 | SECTION 4. The Corps is conducting a reconnaissance study for
flood damage reduction along the Upper Cedar River under Section
205 of the 1948 Flood Control Act, as amended. The current
Administration has called for the discontinuance this authority
by 1996. The reconnaissance study will be funded to conclusion,
but no funds are available at this time to conduct a feasibility
study or assist in implementation.
- 140 | P.4-91. Renton Reach Section 205 study. This project will be
sized based on an optimization of construction and maintenance
costs, damages reduced by the project, environmental impacts, and
sponsor requirements. While 100 year protection was used for the
reconnaissance study, the actual level of protection provided by
the recommended project may be less or greater. As noted in the
previous comment, the Section 205 authority will be phased out by
1996. The feasibility study can be completed as scheduled, but
there are no funds at this time for project implementation.
- 141 | P. 4-91. Goals Discussion. The Corps concurs that control of
upstream sedimentation is an important objective of the Basin
Plan. A preliminary evaluation by the Corps of sedimentation
problems in the basin, based largely on discussions with King
County staff, indicates that erosion problems in the basin are
pervasive, and not limited to one or two major contributing
sites. To relieve conditions at Renton, on-site control of
sediments within the lower mile of the Cedar River are necessary.
However, it is certainly true that any effort to relieve upstream
sedimentation/erosion would be helpful.
- 142 | P. 4-100. The Corps has a variety of authorities which might be
useful in pursuing remapping of the basin, conducting audits,
establishing rating curves, preparing public education documents,
etc. The Corps would be willing to discuss these authorities
with the Basin Committee or Watershed Council.
- 143 | P. 4-102. Consider referencing the new Flood Mitigation
Assistance Program provided by FEMA under the Flood Insurance
Reform Act of 1994.
- 144 | P.5-12 Is the Renton Reach Sec 205 study not included because it

encl

is not considered a CIP?

Draft Environmental Impact Statement, Cedar River

- 145 | P. 15. The Corps considers a 100 year recurrence interval flood at Renton to be 12,000 cfs.
- 146 | P. 17. "Significant impacts" is a poorly defined term. However, flooding of the airport road on the left bank and portions of the park trail on the right bank in the Renton Reach occur in a 1-2 year flood event.
- 147 | p.17(3). The Corps' study of the Upper Cedar River will establish whether there could be a Federal interest in relocation and other nonstructural flood damage reduction alternatives suggested by the County. We will also do a reconnaissance level evaluation of more traditional "structural" flood damage reduction measures where appropriate if nonstructural solutions are not cost effective, to insure that no reasonable solution is overlooked. Please note that the Corps has been ordered by the present Administration to close out the Continuing Authority Program by 1996. Therefore, Federal funds will not be available at this time for implementation.
- 148 | p.20. No Action. Early study results of the Renton Reach indicate the reach is filling at approximately 0.1 foot per year, and has lost 1/2 foot of channel capacity since 1990. A No Action plan would result in increasingly more severe flooding in the Reach in the future, and could also affect fisheries values as the channel continues to change.

Regulatory Functions:

- 149 | P. 2-13. Mitigation Bank Sites: If the mitigation bank sites are to be used for Federal permits, they must have Corps concurrence in their formation. The Corps must agree that the sites are adequate and serve the stated purposes and the Corps keeps track of bank "credits" and "withdrawals". At this time approval of bank sites for Federal uses must be conducted at Headquarters, and is a fairly lengthy process. Therefore, the County should pursue coordination with Regulatory Functions promptly unless these banks are to be used only for local permits.

Environmental Resources Section:

- 150 | P. 3-31 and 4-36. Stormwater should not be routed into wetlands. If a wetland is a peat system (bog, fen, etc.) it should not be receiving stormwater, except as incidental from flooding. The vegetation community in a peat wetland would totally change with extra water inputs. Wetlands can be CREATED to clean up and slow

down stormwater, but existing wetlands should not be used for that purpose.

Hydrology and Hydraulics Section:

- 151 | P.2-4. Corps model routings of the November 1990 flood event show peak flows at about 9,500 cfs at Renton. This would be comparable to a 50 year event.
- 152 | P. 2-4. Per Corps routings, the 100 year recurrence interval natural discharge is 19,300 cfs without the Masonry Dam.
- 153 | P.2-6. The use of 11,000 cfs by the County versus the Corps 12,000 cfs estimated flow for a 100 year flood event might affect the design for some of the proposals for mainstem flood damage reduction, as well as the assumed damages.
- 154 | P. 4-102. Masonry Dam Analysis: Recommend that the Corps be the lead agency for evaluating flood impacts associated with changing operation of the Masonry Dam.
- 155 | EIS: P. 15. 100 year flood flows without the Masonry Dam and the Landsburg Diversion would be approximately 19,300 cfs measured at Renton. With the Landsburg Diversion in place and as currently operated, 100 year flood flows are 12,000 cfs.

RECEIVED
APR 13 1995



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

P.O. Box 47600 • Olympia, Washington 98504-7600
(360) 407-6000 • TDD Only (Hearing Impaired) (360) 407-6006

KING COUNTY 1995
SURFACE WATER MANAGEMENT DIVISION

Ms. Kate Rhoads
Senior Water Quality Engineer
King County Surface Water Management Division
Department of Public Works
Yesler Building
400 Yesler Way - Room 400
Seattle, WA 98104-2637

Dear Kate:

Thank you for sending me the Watershed Management Committee (WMC) Cedar River Draft Basin and Nonpoint Pollution Action Plan, February, 1995, and a copy of part of the checklist by your letter dated March 27, 1995.

156 As I have evaluated and commented on most of the draft Plan previously, my current review consisted of an evaluation of the new implementation chapter and an analysis of the relevant checklist questions. To be succinct, the Plan looks great - everyone involved deserves recognition for all the hard work and the excellent product that has resulted.

157 My primary interest has to do with process and the potential for water quality work to be suppressed. As an example, I point to the polarized interest in home buyouts at one of the recent workshops - water quality really was not an issue. As implementation progresses, a balance needs to be maintained. In order to do this, some extra effort may need to be focused on water quality. This could be discussed in the final plan.

Thanks again for sending the draft Plan and supporting materials. The Department of Ecology looks forward to receipt of the WMC approved plan. Please contact me as you approach this mark so we can coordinate that part of the planning process.

Sincerely,

Bob Duffy
Watershed Planning Unit

BD:lb



State of Washington

DEPARTMENT OF FISH AND WILDLIFE

Mailing Address: 600 Capitol Way N, Olympia, WA 98501-1091 - (206) 902-2200; TDD (206) 902-2207

Main Office Location: Natural Resources Building, 1111 Washington Street SE, Olympia, WA 98501

April 17, 1995

RECEIVED
APR 19 1995
SURFACE WATER MANAGEMENT DIVISION
KING COUNTY

Roz Glasser, Project Manager
King County Department of Public Works
Surface Water Management Division
700 Fifth Avenue, Suite 2200
Seattle, Washington 98104

SUBJECT: Cedar River Draft Basin and Nonpoint Action Plan and
Draft Environmental Impact Statement, Cedar River,
Tributary to Lake Washington, WRIA 08.0299

Dear Ms. Glasser:

The Washington Department of Fish and Wildlife (WDFW) has reviewed the above-referenced documents (the Plan) and submits the following comments.

In summary:

- 158 | 1) WDFW highly commends King County for producing a comprehensive set of recommended actions to address the complex array of water related issues associated with the natural resources in the Cedar River basin.
- 159 | 2) The high number and extent of the recommendations are indicators of the threats to the integrity of the Cedar River ecosystem and the extent of actions which are needed to manage the problems in the basin.
- 160 | 3) Plan actions need to address differential habitat requirements of the various anadromous species and potential impacts on these fish resources. Proposed projects have the potential to exacerbate poor survival of sockeye, the most valuable fish species produced in the drainage, if not the State, on a benefit-per-fish-produced basis.
- 161 | 4) Harvestable runs of anadromous fish are indicative of good health of the ecosystem, not simply a desire of some "public agencies, citizens groups, and tribal governments" as stated in the Plan; natural and artificial production goals for all species, in concert, should be developed and incorporated into the Plan to serve as criteria for success and as a means of defining priorities or ranking projects. Achievement of current or modified spawning escapement goals which have been established by WDFW and the Muckleshoot Tribe may be considered as an indication of the health of the Cedar River ecosystem.

- 161 | WDFW supports a planning process for developing objectives and priorities, as suggested in the Plan, though habitat restoration and enhancement projects proposed should be implemented in a conservative manner until these objectives and priorities are resolved and incorporated into the Plan.
- 162 | 5) Plan actions are expected to improve overall aquatic habitat, but an evaluation mechanism, schedule, or criteria is not included in the Plan; thus objective assessment of true effects on fish production or restoration is not possible. An evaluation program with definable and measurable criteria is essential to the Plan's success and should be incorporated into the Plan prior to implementation of projects affecting anadromous species. Methods such as the U.S. Forest Service video mapping technique and/or direct quantification of fish might be included as protocols to measure the success of habitat projects.
- 163 | The Anadromous Division of the WDFW Fish Management Program has reviewed the documents with the point of view of ensuring that programs or activities such as those contained in the Plan are consistent with the Program's primary responsibility to protect anadromous fish resources. Habitat protection obviously plays a fundamental role in successful protection of anadromous fish--it is clear that, without an ecosystem approach to management, goals defined for one element of that ecosystem are not likely to be achieved. The Anadromous Division has the primary responsibility for ensuring that state citizens receive maximum benefit from resource utilization; WDFW attempts to achieve this goal through continuous assessment of stock status and formulation of appropriate recreational and commercial fishing opportunities.
- The water-related natural resource management issues within the Cedar River basin reflect the true complexity of this valuable ecosystem. Simple solutions are not realistic. WDFW commends the Plan authors for the development of habitat projects that will have definite and positive effects in protecting and conserving this system. WDFW particularly appreciates and will vigorously support those projects proposed for acquisition of open space in the flood plain and riparian corridors, flood hazard reduction, and basinwide water quality improvement or maintenance. Many excellent projects have been proposed in the Plan.
- 164 | Of the four major plan recommendations, concern for anadromous fish resources causes WDFW to focus primarily on the activities

164 directed at Recommendation 2 - Protect and Restore Aquatic Habitat: Protect and restore salmon runs and other aquatic resources, where feasible, by protecting existing high-quality and restoring degraded habitats. As stated in the EIS (page 28):

"In order to be effective in protecting and restoring habitat in a manner consistent with its other responsibilities, the County must (1) prioritize those habitat problems it is capable of addressing, and (2) work closely with the fish and wildlife management agencies to develop habitat management measures for the BPA. Both WDFW and MIT have been active participants in the development of the Plan. A major concern of these agencies is that habitat management measures be consistent with their current fisheries management objectives."

However, current fisheries management objectives for anadromous species have not been incorporated into the Plan to date. Despite the concerns WDFW has expressed in the technical forum that certain habitat projects would increase risk to achievement of fisheries objectives, the Plan has not addressed this risk. Effects on fish habitat have not been assessed, so the report is incomplete in the area of our greatest concern: the potential effects of proposed actions on existing salmonid stocks. The ability of tribal and state agencies to meet responsibilities for fish management are challenged by proposals to increase habitat without regard for the different habitat requirements of the various anadromous species and without an assessment of potential interspecific consequences. WDFW requests that these issues be addressed and disagreements resolved prior to implementation of projects. Development of a technical report with an assessment of species specific impacts is mentioned in the description of MS 4: Mainstem Habitat Restoration and Enhancement Program. WDFW believes this report could be the vehicle for resolution of any conflicts regarding fish habitat benefits and recommends that it be completed prior to implementation of habitat projects.

As a participant in development of the Plan, WDFW has consistently made the point that benefits from anadromous fish resources of the Cedar River will be maximized by actions that favor sockeye production. The Cedar River sockeye population is unique in the region, with the clear potential to provide high

Roz Glasser
Page 5
April 17, 1995

165 | A Hydraulic Project Approval is required from WDFW for projects identified in the plan which involve any work within the ordinary high water mark of the river, its tributary streams, and any associated wetlands. The applicant must provide proper protection of fish life prior to issuance of the approval.

Thank you for the opportunity to comment. If you have any questions or need additional information, please contact me at (206) 392-9159.

166 | We appreciate your cooperation in our efforts to preserve, perpetuate, and manage the fish resources of the state of Washington.

Sincerely,

Larry Fisher

Larry Fisher
Area Habitat Biologist
Habitat Management Program

lf

cc: WDFW: Everitt, Phillips, Muller, Austin, Sanford, Pattillo,
Ames, Fresh, Deusen, Cowan, Olympia
Muckleshoot Fisheries: Coccoli, Groce, Malcom

RECEIVED
APR 17 1995

KING COUNTY
SURFACE WATER MANAGEMENT DIVISION

6-8000-PBC-41395
April 13, 1995

BOEING

Ms. Roz Glasser
Cedar River Basin Plan Manager
King County Surface Water Management Division
700 5th Avenue, Room 2200
Seattle, Washington 98104

Subject: Cedar River Draft Basin and Nonpoint Pollution
Action Plan

Dear Ms. Glasser:

Thank you for the opportunity to Comment concerning
specific issues contained in the referenced Plan.

The following are specific passages in the referenced
document that are of concern:

167 * Chapter 1, Page 9 (1-9) reference is specifically made
of The Boeing Company as the main industry. This
paragraph points The Boeing Company out as a specific
industry. As you know there are other industries (both
large and small) and uses (Renton Airport) that can
effect water quality of the Cedar River. I recommend that
the referenced document drop any reference, to any
industry, by name.

168 * Chapter 4 Page 105 (4-105) a specific recommendation
(MS 9) requests that The Boeing Company "continue to
eliminate all discharges of cooling water into the Cedar
River". As stated in our letter to King County Surface
Water Management (SWM) of October 31, 1994, we do not
discharge noncontact process water into the Cedar River
or Lake Washington. To request that we continue not doing
so is unnecessary reference to a non existent action.

169 This recommendation also requests that we have our
Stormwater Pollution Prevention Plan (SPPP) reviewed by
the Washington State Department of Ecology (WDOE). As
stated in our letter to SWM of October 31, 1994, this
would be duplicative of the National Pollutant Discharge
Elimination System (NPDES) Industrial Stormwater Permit
process. The Boeing Company will not comply with this

Page 2
Ms. Roz Glasser
6-8000-PBC-41395

BOEING

proposed process as it is not a regulatory requirement, and adds another layer of unnecessary regulatory process, currently not required of other industrial facilities.

170

The referenced document makes various references to the City of Renton and U.S. Army Corp of Engineers (ACOE) 205 Process that will allow the lower portion of the Cedar River to be dredged. This recommendation is one that The Boeing Company highly endorses.

171

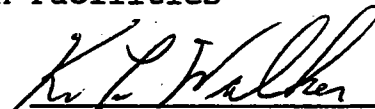
In summary, The Boeing Company has supported the effort of this referenced document by attending Watershed Management Committee (WMC) meetings, providing input, including providing a Boeing video of the Cedar River System for technical reference. The Boeing Company shares the interest in preserving and enhancing both the aquatic and economic resources of the Cedar River Basin.

Sincerely,



Paul B. Crane
Environmental Planner
Boeing Commercial Airplane Group
Central Region Facilities

Concurrence:



K. L. Walker
Engineering Senior Manager

cc: Terry Lewis, Boeing Corporate Government Affairs
Mike Babich, Boeing Environmental Affairs Manager

RECEIVED
APR 19 1995
KING COUNTY
SURFACE WATER MANAGEMENT DIVISION

To: Roz Glasser, Cedar River Basin
Project Manager
700 Fifth Avenue, Suite 2200
Seattle, Wa. 98104

Subject: Comments- Cedar River Basin Plan and DEIS

172 In general, I find the plan well written and contains a wealth of information regarding the entire Cedar River and its tributaries. I do not believe that there has been adequate time allowed for review for to do a more complete review would require an analysis of each recommendation and its impact on the involved property owners associated with that project. In my discussions with property owners they are overwhelmed by the data in total and are really concerned with only their neighborhood and particularly their property. It is my suggestion that a well publicized meeting be held with each subbasin and discuss only their concerns.

My comments therefore are from my own knowledge and without a great deal of investigation of each project. They are made with the intent of generating further study regarding alternatives that may be viable.

These are my recommendations:

173 o The flooding of the lower river is caused by the fact that the delta has built up to the point that it slows the flow of water to the lake. As in the past, before there was all this regulation, dredge the lower river from Logan Street to the mouth to avoid this condition. At one time Renton owned a dredge and did the job..

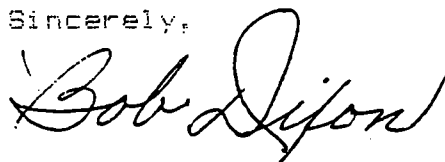
174 o There are numerous projects which lie inside the Growth Management Areas (GMA) of cities within the basin but there is no provision for those cities to share in the cost of these projects. Why not? Since it is their plan to expand into these areas why are they not sharing in the cost of these improvements? As the residential density increases each of these subbasins become more critical to water quality for the basin.

175 o There is no firm plans indicated regarding the source of all the funds required. Although it appears that there are different sources of money the fact is that the only source is TAXPAYERS. Government does not create money it merely overspends the money collected from the taxpayers!

- 176 o Per both documents the major cause of flooding is from the headwaters of the Cedar River and not from the downstream tributaries. The City of Seattle controls the headwaters of this river and yet have not stepped up to their responsibilities. Using the series of dams which they own it appears feasible to accomplish a higher degree of flood control by proper utilization. There were problems in the building of Masonry Dam of which I am aware but that does not preclude raising that or other dams to better control the downstream flow. This alternative was totally ignored!
- 177 o The surface area of the mainstream had been reduced by approximately 56% and yet there are periods of low water during the summer due to Seattle's policies and unauthorized draws from Rock Creek. It appears to me that a "get tough" policy is required to protect the flow of the river during these times. Stop unauthorized draws from Rock Creek. Require Seattle to maintain a flow which will support the fish population. Why doesn't SWM and MIT bring a class action against both Kent and Seattle?
- 178 o If Seattle was to be a good neighbor is it reasonable that SWM would not have to generate plans to buy out those residents in the 100 year floodplain. I would suggest that only those residents in the ten year flood plain be given the option of selling their property to the County. Those that live in the floodplain should be notified by registered letter that the County will no longer maintain the levees and will not assume the responsibility for any damage due to flood conditions. This is the flip side of the offer to buy them out and may have an influence on their decision.
- 179 o SWM will provide technical assistance to those who which to maintain the levees but will not be responsible for the maintenance. SWM will utilize those properties acquired to the best interest of the Cedar Basin Plan and its four major recommendations.
- 180 o Those properties which have been designated as being in the floodplain should be examined to determine if any building permit has been started. If possible preclude any further building in the floodplain even if "grandfathered". As a last resort buy out the willing sellers. Reject any applications for construction in the floodplain. Why should the taxpayers buy out a property after the owner has built an expensive home in a hazardous area?
- 181 o "Construction and operation of a temporary sockeye hatchery at Landsburg, together with a seasonal fish weir in the lower river to collect broodstock for the hatchery. appears necessary to preserve the existing stock of sockeye until more comprehensive actions can become effective" When

- 181 is this to occur? THE SCHEDULE FOR THIS PLAN DOES NOT SUPPORT THE FISH. Are we going to preserve the fish after they are all gone? (Adoption and implementation--This step is not anticipated until 1996 and beyond)
- 182 o I believe that the establishment of this hatchery should be the top priority for unless something is done in the NEAR future there will be no fish to save
- 183 o SWM and other have spent time and effort to improve a rearing area called Cavanaugh's Pond. Trees have been planted, the area cleaned up, and in general improved. At the same time WSDOT widened SR169, Maple Valley Highway from two to four or five lanes. The runoff of this road which has been increased by more than 100% is directly into this pond through plastic pipe. Does the left hand know what the right hand is doing and how many fish must we lose before this condition is corrected?
- 184 o Open Space has bought the acreage identified as Wilderness Retreat and Wilderness 50. Does that mean that this property no longer pays property taxes? While I agree with the premise that the channel and its tributaries should be protected what can be done about all the property being considered for purchase when it is removed from the tax rolls? Do we provide the option of others on the tributaries and mainstem to volunteer to sell? Will the little guy get the same break as the big landholders.
- 185 o Is 3123 being accomplished with the present revisions to the Maplewood Golf Course? It would be a sham if this is not done since Renton is represented on the Basin Council.
- 186 o While these documents deal with non-point pollution I am not yet convinced that the permits and the monitoring of the point source area is being adequately handled. I would like to see the responsibility for this transferred from the state to the county with the intent that it is a critical part of the basin plan.
- 187 In summary, I find the documents to be factual and most informative. I agree with the Basin Wide support levels and would like to see how these recommendations are to be implemented, as an example: When is DDES going to amend the KC Grading Code per BW23 or initiate an urban stormwater program such as defined in BW24? I believe the FISH come FIRST followed by flood control and water quality. There should be more public awareness of the fact that the Cedar determines the health of Lake Washington so more than the property owners in the basin should be concerned.

Sincerely,



Regina Gilmore
13426 SE 180th St
Renton, WA 98058-6840

17 April 1995

Roz Glasser, Project Manager
King County Surface Water Management Division
700 Fifth Avenue Suite 2200
Seattle WA 98104

Dear Ms. Glasser,

I attended your informative meeting on March 30, 1995. I picked up a copy of "Chapter 3, Subarea Recommendations" on which I would like to comment.

188

The crossing of Molasses Creek at SE 180th Street has not flooded in or since 1990 and, according to neighbors, not prior to that time. CIP 3132 is not necessary unless the planned improvements at 140th Ave adversely impact this site.

North of SE 180th St., Molasses Creek runs through a pasture, then a wooded area. It is bordered by a small wetland before it runs through a culvert under Petrovitsky and enters Cedar River Wetland #2. From there it flows through the back yards of Fairwood Crest. Then it disappears underground on Seattle Water Utility property.

189

Our neighborhood has worked together in the past to protect this stream from undue development. We think your plan would provide an excellent opportunity (and probably the last) to protect/purchase the wooded portion of the creek corridor from SE 180th St to Petrovitsky. This area was designated by the old Community Plan as an aquifer recharge area. If a purchase is out of the question, clarification is necessary, whether Molasses Creek merits Class 2 with salmonid designation and protection under the SAO for its full length (2.2 miles) or the lower 0.8 mile only.

Ms. Linda Hanson from your department included Molasses Creek on a list of mitigation projects. She suggested to unearth and restore 1,000 linear feet of Molasses Creek (past Fairwood Crest?) and to enhance the riparian corridor. This should be beneficial to the salmonid habitat just below. Please include this on your CIP list.

Fish are blocked by the steep drop of the terrain and an impassable culvert at Petrovitsky. Is Fisheries interested in remedying these obstacles? If not, why not?

190 I drive Petrovitsky Road almost daily. There is a large amount of debris (sand, twigs, leaves, gravel) that collects around the storm drains in the winter months and that is not removed for weeks. More timely maintenance would keep this debris out of Molasses Creek and Cedar River Wetland#2.

191 Last week the Road Department worked on the drainage ditch next to SE 180th Street from near the crest of the hill to Molasses Creek. They started to line the ditch with rocks. For the sake of water quality the ditch should be revegetated at least partially, where there was vegetation before.

192 Finally, several neighbors are interested in assisting with a clean up project along Molasses Creek, particularly the site North of SE 180th to Petrovitsky.

Thank you for considering my comments.

Sincerely,

Regina Gilmore
Regina Gilmore

cc: Linda Hanson
Ann Biklé

Enclosure

RECEIVED
APR 25 1995
KING COUNTY
SURFACE WATER MANAGEMENT DIVISION

April 21, 1995

King County Surface Water Management
700 Fifth Avenue, Suite 2200
Seattle, Washington 98104

Attn: Ms. Roz Glasser
VIA fax 296-0192

Re: Cedar River Draft Basin and Nonpoint Pollution Action Plan

Ms. Glasser:

Thank you for extending the response period for the above document. The additional time has allowed us to delete items we were originally concerned about. We would like to commend you on both the writing and organization of the Plan. The vast majority of the Plan has provided clear direction for protection within the Cedar River Basin. We do have a few commends and questions regarding the Plan.

Attached to this letter are our technical comments or concerns with the Plan. The following is a summary of the majority of our comments:

*** BW 18: Retention / Detention Standards**

193

The Basin plan does not appear to have incorporated the effects of the Lake Desire Management Plan. The Plans use two different solutions which could actually remove far less than even 20-percent of the phosphorous.

One of the major benefits to our environment from lakes and wetlands is their natural ability to absorb the impact of stormwater. This basin contains three lakes and four major wetlands, as such it makes sense to reduce the R/D requirement to Level 0.

*** BW 3: Wetland Management Area:**

194

This policy is intended to guide "development conditions" within the lands adjacent to and within the Urban Growth Boundary. Item two requires "65-percent forest retention and 8-percent maximum impervious area (see BWs 22 and 23)." Policies BWs 22 and 23 both appear to only apply to rural residential development yet policy BW-3 addresses urban lands. Please verify that it is not the Plan's intend to require development within the urban area to meet such guidelines.

*** BW 9: Improvement of Water Quality from Road Drainage and Urban Areas**

195

We were not able to understand the recommendations of this element. Please clarify the requirements and the intent of this recommendation for us.

h:\home\mloah\scowd\crbp.421

Ms. Glasser - draft CRB&NPAP
April 21, 1995
Page 2

196 *** BW 10: Pollution from On-Site Septic Systems**

The recommendations in this element clearly protect the public's health and welfare. We suggest that this also be included within the Lake Desire Management Plan.

197 *** BW 12: Water Quality Treatment Standards**

Please clarify this recommendation as well as define the BMP's need to comply with this recommendation.

198 On several instances, during public hearings before the Council, SWM experts have been questioned regarding scientific justifications for expanding buffers beyond 100 feet. We do not believe that the Division has provided any information which verified a need for additional buffering. We recommend that the 100 foot buffers be required in the locations identified.

199 According to the Plan the recommended capital improvements have been estimated to cost 55 million dollars with an additional 30 million in programmatic costs. Who will be responsible for the \$85,000,000 in revenues required to perform these tasks? What are your projections for the additional costs to private landowners to comply with the Plan.

In conclusion we would again like to commend your team for an excellent document. Please do not hesitate to contact me if there is additional information or assistance we can provide regarding this Plan.

Very truly yours,

HEDGES & ROTH ENGINEERING, INC.
Bellevue Office



Helen E. Nilon

HEN:nh

cc: JFR KM MT

Hedges
& **R**oth Engineering, Inc.

h:\home\nilonh\scwsd\crbp.421

14450 NE 29th Pl., Suite 101, Bellevue, Washington 98007
(206) 869-7446 800-835-0292 FAX (206) 869-1190

1011 E Main, Suite 101, Puyallup, Washington 98372
(206) 840-9847 800-540-9847 FAX (206) 840-6217

Cedar River Basin and Nonpoint Pollution Action Plan

Comments on the
Draft, March 1995

Reviewed on behalf of Soos Creek Water and Sewer District.

Reviewed by: Mark A. Thompson, P.E.
Hedges & Roth Engineering, Inc.
14450 NE 29th PL Suite 101
Bellevue, WA 98007
(206) 869-9448

The Cedar River Basin and Nonpoint Pollution Action Plan is a very broad, encompassing plan which seeks to manage stormwater runoff in the Cedar River drainage basin. It's recommendations can be summarized in four categories:

1. Reduce Flood Damage
2. Protect and Restore Aquatic Habitat
3. Maintain Water Quality
4. Watershed Management

It is easy to read much emphasis on flood control, especially in the sections on the mainstem reaches of the river itself. However, the Plan is much more than that. The bibliography in Appendix C contains 27 reports dated from 1988 to 1994, including university master's theses, and few of them pertain to flood control. This Plan represents the latest thinking on ways to mitigate urban runoff and nonpoint source pollution. This is a very new field of study and this report is at the forefront. What follows are comments on the Plan's basin wide (BW) recommendations.

BW 18: Retention / Detention Standards

The strict, retention/detention (R/D) recommendation for the Peterson Creek sub-basin is in contrast with the description of hydrology of the area. This recommendation will reduce the peak runoff by 50 percent and is estimated to cost \$59,000. To estimate this cost to be \$59,000 is to ignore the cost of constructing these facilities.

Was it the intent of the Plan to ask new developments to provide extra detention? The Plan observes that "peak flows under current conditions have increased only modestly." (page 3-45) This is due to the four large wetlands and three lakes. The Plan observes that "These water bodies, along with extensive areas of forested and low-density residential land uses endow this subarea with a high degree of hydrologic buffering. As a result, most stream and wetland habitats remain in good to excellent condition compared to those in the nearby Molasses Creek and Madsen Creek."

The justification for catchments P6 and P7 was found in Table 4-3 and included "Prevent sediment and phosphorus transport to Lake Desire. Prevent significant increases in frequency and duration of Lake Desire stages that currently damage shoreline property and flood road." There are two concerns stated here: phosphorus and flooding. Regarding sediment and phosphorus; this was addressed in the Lake Desire Management Plan (LDMP). The LDMP estimated that only 4 percent of the phosphorus in the lake comes from surface runoff from catchment P6 and that 25 percent comes from catchment P7 which is undeveloped wetlands and was considered a relatively natural source which cannot be easily reduced below current levels. This was projected in the future to increase areas P6 and P7 to 21 percent and 21 percent, respectively. To address this, the LDMP recommended wetponds with a increased sizing factor of 4.5 and made no mention of increased R/D. While it's true that R/D facilities do provide water quality functions, this has not been acknowledged by current King County SWM standards, which call for both a wetpond and a biofiltration swale to provide sediment removal and water quality treatment. The two plans offer two different solutions to something that will not remove more than 21 percent of the phosphorus.

Concerning Lake Desire flood stages, there are other recommendations of this Plan to address this. One is Plan Element 3151, the elevation of the road for a cost of \$200,000. The other is Plan Element PC 1, the removal of beaver dams and other obstructions from the culvert and the shallow grade outlet of the lake, estimated to cost \$15,000. These structural elements eliminate the need for drastic increases in R/D requirements.

203 It is difficult to estimate the effect such a R/D standard would provide, especially since the design standards are new and untried. The Plan estimated that a Level 2 R/D would increase pond sizes by a factor of 2 over Level 1. What would be the increase of Level 3 over Level 1?

From an overall standpoint, it makes little sense to provide increased R/D in a basin with four large wetlands and three lakes. One of the major benefits to our environment from lakes and wetlands is their ability to absorb the impact of stormwater or as the Plan states "to endow this subarea with a high degree of hydrologic buffering." Why, then, if there isn't a problem now, is the Plan suggesting exaggerated R/D. It makes more sense to reduce the R/D requirement to Level 0 and take advantage of the lakes and wetlands to act as natural, regional R/D facilities. The flexibility to apply this lower level of R/D facility performance is specifically recognized in Section 3.3 of the 1990 Design Manual:

"a less restrictive performance curve may be appropriate such as where a regional facility may be providing flood control for less frequent storms. The less restrictive performance curves will normally only be developed as part of a regional hydrologic analysis such as that performed for a Basin Plan or a Master Drainage Plan."

204 Finally, we point out 2 possible errors. On page 4-36 the Plan calls for Level 2 R/D, yet figure 4-1 shows Levels 1, 2, and 3 in various areas. Also, table 4-3 shows Level 3 for catchments P8 and P9 when both the box next to it and figure 4-1 indicate that Level 1 is what was intended.

BW 3: Wetland Management Areas

205 The Sensitive Area Ordinance respectively calls for 25, 50, and 100 foot buffers around a class 3, 2, and 1 wetland. Was it the intent of this Plan to increase the standard for a class 1 wetland to 150 feet? What is the justification for this number? Will the extra 50 feet this improve the quality of the wetland?

206 Referring to BW 22 and 23, the Plan recommends 65 percent forest retention and 8 percent maximum impervious area. Both requirements have roughly the same effect on development. This element can be interpreted to apply to areas within the Urban Growth Boundary draining to this basin. The impervious area for a typical housing development is 20 - 30 percent. 30 percent of the 35 percent available for housing is 10 percent impervious surface; which is roughly equivalent to 8 percent.

This seems rather extraordinary. A single family residence with a small 1500 square foot house and driveway on a typical 7200 sq. foot lot with 100 feet of half street frontage has 28 percent impervious surfaces. This would mean that a development could meet all other requirements, including clearing only 35 percent of the land, and still not receive a permit because the rest of the catchment basin has too many impervious surfaces, something totally out of the property owner's control.

Plan Element BW 23 extends this to individual lots and prevents clearing more than 35 percent or 7000 sq. feet. To mitigate the cost to the property owner, there are proposed ways to reduce local property taxes and gain federal tax credits for retaining uncleared areas as open space. Note an error on the page restricting the clearing to 6000 sq. feet.

206 The justification for limiting development of impervious surfaces to less than 8 percent is scientific research showing a high degree of correlation between seriously degraded aquatic habitat and contributing impervious areas. (page 4-37) Was this correlation observed in areas that utilized the 1990 Design Manual for development? Perhaps this research is not appropriate to new development. In which case, limiting impervious surfaces to 8 percent would be an overreaction and an exaggerated response to problems observed elsewhere. This is especially illuminating when combined with other references to limiting development in the Plan. Elsewhere, the Plan discusses the Peterson Creek Basin saying,

"Septic system failures and, to a lesser extent, livestock keeping practices have been identified as nonpoint pollution sources in this subarea. However, the threat from development is a more significant problem. The already serious eutrophication of Lake Desire is expected to increase significantly due to surrounding future development at urban densities. Half of the Lake Desire drainage basin and nearly all of the Shady Lake drainage basin lie within the Urban Growth Boundary. Development to urban densities will considerably increase pollutants to these lakes."

This statement suggests that the technology does not exist to protect the environment from housing developments and portrays a motive for limiting development, yet appears to be contrary to the intent of the Growth Management Act, which says that growth will occur and plans for that development. The Plan must resolve this paradox and testify either against any further growth in housing or for pollution prevention practices, either existing or proposed, that will mitigate the effects of that growth. If the Plan concludes that restricting development is the most effective tool for this, then that recommendation should be passed on to a governmental agency with the authority to do that.

BW 9: Improvement of Water Quality from Road Drainage and Urban Areas

207 The recommendations of this plan element are not clear. What actions are to be taken? The verbs used here are "should *emphasize* actions that reduce nonpoint pollution from urban runoff, road runoff, and road maintenance activities." And that "These actions *should* include retrofitting existing facilities with pollutant treatment BMP's (e.g. biofiltration swales, and wet ponds) and maintenance..." However, the cost estimate is \$296,000 for staff support over 10 years. For that amount of money, there should be something done in the field, not just staff support in the office. The discussion includes identification of pollution sources. Was it the intent to provide staff time for the location of the sources of nonpoint pollution? What will be the role of King County Solid Waste Division and South King County Department of Health? Are they to receive some of this money for staff work?

BW 10: Pollution from On-Site Septic Systems

208 The Plan recommended that "Within the Urban Growth Boundary, areas with chronic septic system problems should receive priority for connection to sewer lines." (page 4-50) The Plan goes on to

208 justify this because of concerns over high septic tank failure rates and periodic excessive coliform bacteria in the Cedar River. This recommendation will have the added benefit of remedial treatment of eutrophic lakes subject to septic tank leaching, such as Lake Desire and should be incorporated into the Lake Desire Management Plan, currently being drafted.

BW 12: Water Quality Treatment Standards

209 This section calls for application of Best Management Practices (BMP's) to meet performance specifications. For example, in catchments with sensitive lakes, phosphorus removal is important to prevent nutrient supply to lake algae. Outside the Urban Growth Boundary, development projects shall have protection BMP's that provide 50 percent removal of phosphorus. Inside the Urban Growth Boundary, all known available and reasonable methods of prevention, control, and treatment (AKART) BMP's shall be applied. It's estimated that this will provide 70 to 75 percent removal of phosphorus.

It's unclear how this is to be enforced. How is the performance to be measured. Will the performance be monitored after construction? What are the BMP's required to meet this performance? Is this to be determined at the time of permit application? Will SWM be providing recommendations to DDES for this, or is DDES responsible for interpreting this?

Summary

210 The Plan will be very successful in preserving the valuable aquatic resources of the Cedar River. There is much in the Plan to be applauded and space considerations limit us to a review of areas of concern. The hope is that addressing them will provide a practical plan for the ultimate growth of the basin.

Most of the concerns raised can be traced to incongruous thinking. The Plan recommends advanced measures to control runoff and yet, predicts considerable stream quality degradation from the developments using those measures.

To be a practical guide to growth in the basin, the Plan must first acknowledge that growth will occur. With that basic tenet in mind, the plan should then propose measures to deal with it. It may be that the current development standards, being quite new and expansive over previous ones, are sufficient for mitigating stormwater runoff. If extra measures are required, then they should be justified with examples of the problem to be solved and estimates of the effectiveness of the solution. It's not enough to merely site the phrase "All Known and Reasonable Technology" and apply them in extraordinary proportions.

by: 

Mark A. Thompson, P.E.

RECEIVED
APR 17 1995
KING COUNTY
SURFACE WATER MANAGEMENT DIVISION

April 14, 1995

To: Roz Glasser, Project Manager
King County Surface Water Management Division
700 Fifth Avenue, Suite 2200
Seattle, WA. 98104
206-296-8399
FAX 296-0192

Subject: Capital Improvement Plan -
3112 - Cedar River Basin and Nonpoint Action Plan

Reference: (A) Cedar River - Draft Basin and Nonpoint Pollution Action Plan
dated February 1995

(B) Public Workshop Meeting - March 30, 1995 -
Cedar River Basin Plan

(C) Draft Environmental Impact Statement (DEIS) for the Cedar
River Basin and Nonpoint Pollution Action Plan,
Issued February 28, 1995

211 I. Capital Improvement Plan (CIP) 3112 recommends construction of a
1200-foot-long levee below the SR-169 bridge. This would necessitate
removal of up to four houses to accommodate the levee. The respective
home owners listed below are also the respective residents and have
collaborated in preparing this letter.

Mr. Lorenz has resided 57 years.
Mr. Lyons has resided 37 years.
Mr. Curtis has resided 33 years.
Mr. Tonkin has resided 19 years.
All are retired from local Industry-Business and all plan to maintain their
current residence for the balance of their lives.

212 II. Although the November 1990 flood is used as a disastrous yardstick
throughout reference (A), it is also generally known that "partially
ineffective operation" of the existing Landsburg Dam's water flow control
device during critical water level was the major contributing factor for
sudden high river cresting and flooding. During the reference (B)
discussions, it was presented that extensive state-of-the-art technical
improvements pertaining to operation of the Landsburg flow control device
will reduce the possibility of future operational errors. Reference (C), Part

212

IV paragraph A.1. states "With the Landsburg Diversion in place, and as currently operated, 100 year flood flows are 11,100 cfs, Reference (A), Chapter 2, Flood Damage Reduction-Conditions (fourth paragraph) states "the estimated discharge used by all agencies to characterize the November 1990 flood is 10,600 cfs, based on US Geological survey records". Therefore, the existing control devices at Landsburg have capacity to control 500 cfs more than occurred during the November 1990 flood. This analysis verifies ineffective operation of the existing flow control devices during November 1990. Further, discussions with Glenn Evans - P.E. Senior Engineer, Surface Water Management confirms his understanding that improper operation of the Landsburg flow control devices contributed greatly to the November 1990 flood.

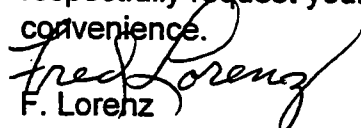
Summary

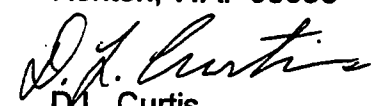
213

The estimated cost to implement C.I.P. 3112 is six and one half million dollars (reference A.). The purpose of C.I.P. 3112 is to prevent future flooding of the Maplewood subdivision below the SR-169 bridge even though flooding was negligible (due in part to emergency sandbagging) and caused by ineffective operation of the Landsburg flow devices during the November 1990 flood.

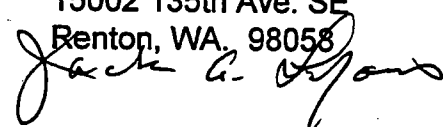
Whereas the Landsburg flow control devices are adequate to control 110-year river flows and that respective operational efficiency has improved to prevent a repeat of the 1990 flooding, it follows that C.I.P. 3112 is not required in its entirety and would constitute an extremely expensive overkill.

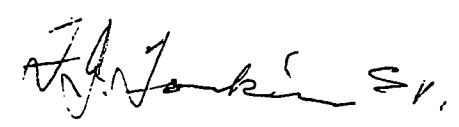
Although in agreement with the overall concept of the (reference A.) plan, we, the undersigned request that C.I.P. 3112 be revised to delete requirements advocating "construction of a 1200-foot-long levee along the right bank at R.M. 4.2, below the SR-169 bridge, to protect the Maplewood Subdivision from 100-year flooding" and to delete "Up to four houses would have to be removed to accommodate the levee." We respectfully request your review and response at your earliest convenience.


F. Lorenz
14900 135th Ave. SE
Renton, WA. 98058


D.L. Curtis
15010 135th Ave. SE
Renton, WA. 98058

J.A. Lyons
15002 135th Ave. SE
Renton, WA. 98058


F.J. Tonkin, Sr.
15022 135th Ave. SE
Renton, WA. 98058



April 10, 1995

RECEIVED
APR 14 1995
KING COUNTY
SURFACE WATER MANAGEMENT DIVISION

To: Ms. Roz Glasser

Re: Comments on the Cedar River Draft Basin and Nonpoint Pollution Action Plan

It is very visible that a lot of time and effort went in the Basin Plan. I have a few comments on the general approach.

214 1) The Basin Plan proposes many programs to increase the knowledge and participation of the community on the stewardship of our waterways. However, it appears that the focus of the Basin Plan is to improve existing conditions that the community has already created. I suggest to shift the focus instead to the future. As documented in Chapter 1, the future development growth will be throughout the valley. No where did I note any direct tie in to the responsible group(s) within the King County Administration who approve building permits, development permits, variances etc. The point being, if we want to preserve the water quality and habitat, I believe that it is our responsibility to ensure that the plans are reviewed prior to approval, to see how they may influence the surrounding habitat. It is usually not the single home owner, but the developer or large company with the power and influence who are knowledgeable in the permit process and are allowed variances. This should be controlled. To see the affect of housing and subdivisions, I refer to the water quality of Lake Desire and Lake Wilderness.

215 2) Lake Desire is noted several times in the Basin Plan as having water quality problems. More money will be allocated in the future to help clean up their existing problem. It seem contradictory to have Lake Desire zoned as "Urban". Common sense dictates that if it is having water quality problems now, future housing developments will only exacerbate the problem. If rezoning is being considered for other areas within King County, then rezone Lake desire to "Rural" or "Transitional" such as Spring Lake. This would at least stabilize their water quality problem.

216 3) I believe that companies such as Stone Way are allowed to log along Maple Valley Highway, thus increasing the direct runoff into the Cedar River. Stone Way also has holding ponds for their operations such as those on Cedar Grove road with no over flow capability so when hard rain comes, the holding ponds overflow and the excess drains into the Cedar River. It seem that this should not be allowed in 1995, with all the restrictions placed on the private sector. No "grandfather" clauses should be allowed. If the private citizen is not allowed, then neither should business.

217 As stated previously, the Basin Plan has many worth while projects, but I believe that we need to refocus on future growth so that we are proactive and not reactive. This is beneficial for both the ecological system as well as the tax payers pocket book.

If you have any questions please call me at my home (432-2208) or office (237-7800) Monday - Thursday

Sincerely,


Kim Odstrcil

DPT
2) SWM - CCF

RECEIVED 11 P

MAR 22 1995

March 21, 1995

KING COUNTY
PUBLIC WORKS DIRECTOR

Paul Tanaka, Director
King County Dept. of Public Works
400 Yesler Way, Room 700
Seattle, WA 98104-2673

Dear Mr. Tanaka,

218 I have thoroughly reviewed the Cedar River Draft Basin and Nonpoint Pollution Action Plan and the Draft EIS/Cedar River for the Shady Lake Community Council. We are concerned about what government is going to do to us now. Because of the short time frame, I won't have time to get full Council agreement so I am forwarding my thoughts in this letter and will get Council input/approval as quickly as practical.

219 I find several things in the Plan or EIS that are incorrect or objectionable. First, both are full of repetition and puffery. The meat of the reports could have easily been presented in 1/3 the space. Such reporting wastes tax dollars and the time of everyone who tries to review the reports. It also gives the writer opportunity to hide important facts or conclusions and discourages at least some taxpayers from attempting a review.

220 Some of the proposals that are made do not coincide with King County's request for an action plan. Their request has nothing in it about enhancing fish habitats, spending millions of dollars coordinating with other agencies or setting up an additional bureaucracy (Watershed Management Committee/Cedar River Legacy Program or Basin Steward Program).

221 Both reports imply that citizens (either as individuals or Citizen Committee Members) have had some direct influence on this plan or that they somehow contributed to the proposals. I can tell you from first hand knowledge that no citizen input has been accepted. Also, I watched the Citizens Committee in operation over several months and not one of these recommendations was made by their membership. No part of the report was prepared by them and they did not vote to support any specific part of the report. They didn't even hold discussions about these reports or acceptance of them.

222 I would also bet that no part of the reports will be materially changed after the upcoming public meetings. These reports are what SWM wants to do and it should be presented that way so all citizens and the King County Council will know it is the County presenting something to the County. The reports are very self-serving for SWM. If accepted, they will provide SWM a great deal of new power, many new employees, a much higher budget and jobs for at least 12 to 15 years.

223 I cannot support the recommendations to buy houses! The space that any one house occupies can't possibly have any significant impact on a river the size of the Cedar. Yet each house will take a large amount of limited resources. And, I have seen that all the

people who live in flood plains know they are going to get flooded at some time. If they get flooded enough times, they will move. I have no sympathy for them and don't want tax money spent to bail them out.

224 I cannot support SWM doing fish habitat restoration. This should not be part of their charter because if it is, we were lied to when we voted money for SWM. We were told SWM would solve flooding problems. Now, I can see from this report that solving flooding problems is one thing we have not gotten and it is not planned unless we want to give more millions. No wonder people are fed up with government!

225 It appears that what we bought with our tax money is a bureaucracy that gobbles all the tax money, does lengthy studies, prepares verbose reports and tells us that if we want what we were promised, we must send more millions after the previously wasted millions.

I cannot support the millions of dollars designated for "staff support". For example \$850,000 for staff support for a Watershed Council and another \$850,000 for staff support for a Basin Steward Program is way, way too much. If these reports are correct, honest and complete, we don't need additional monitoring. What we do need is some of the capital projects completed per the promises that were made.

226 In fact, it seems to me that the County Council told SWM to do these capital projects when they said "...develop and implement an action plan...". This implies that the County Council wants SWM to proceed and that they believe SWM has enough money. We taxpayers also believe that SWM has enough money; enough of our money. Now that the reviewing and reporting is done, it is time that all of SWM's money be spent on capital projects. It may take a few years and they won't be able to afford useless councils or staff time, but will be able to get the work done that we have been promised.

Sincerely,



Donald L. Anderson
17837 S.E. 192nd Drive
Renton, Washington 98058

RECEIVED

APR 14 1995

KING COUNTY
PUBLIC WORKS DIRECTOR

April 12, 1995

TO: Paul Tanaka - Director, Department of Public Works

FROM: Miles Langdahl - Homeowner, King County

SUBJ: Response to the
Cedar River Draft Basin and Nonpoint Pollution Action Plan

Mr. Tanaka,

After reviewing the draft of the nonpoint pollution action plan I discovered that this plan left out any considerations for the individual homeowner. This plan only addresses large CIP programs in the price range of \$400K to \$2 million. There are many situations all along the Cedar River which need to be addressed in varying ways.

As an individual trying to mitigate an erosion problem which is endangering our only source of water (domestic well) I recently have found out how frustrating, time consuming, and costly it is trying to get a project permitted.

227 Frustrating - After working on my project for over 2 months, I discovered there were a multitude of agencies that I needed to submit documents to for approval. I also was sent to review a bioengineering demo site on the Green River for ideas for my project. While at the site (constructed within the last 6-8 months at a cost of ~\$300 per lin ft. funded with grant money- I have 250 lin. ft of property to mitigate) I noticed repair work had already been done due to water damage and over flow of the river. When given this type of example by the Shoreline manager to review for ideas I wonder where he invisions I will come up with the finances to do my project and the resources to maintain it once it's installed.

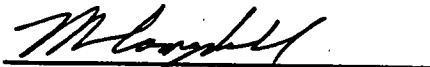
Time consuming - Unless you have previously been through the process with the exact same circumstances it is almost impossible to go through the project without a major hold up somewhere. I state this because of what I have discovered and also information and stories relayed to myself when in contact with individuals which have been through this or tried to process a project through the proper channels.

1

227 Costly- The projected permitting fees alone for my project is over \$5,000. This with the \$2,500 fee for the Civil engineer I had to hire to do the design work and provide technical support to process all the permit applications, and the estimate of \$12,000 for construction cost. This brings the total to just under \$20,000 to provide riverbank retention. This is a major burden for an individual to incur when the propose of the project is to secure the only water supply available.

Note: To finance this project we will need to withdraw form our retirement funds.

Thank you for your considerations to my comments,



Miles Langdahl
22734 228th Ave. SE
Maple Valley, WA 98038 432-4760

cc: Bill Dennis / King Co. Councilman Brian Derdowski's office

Section C: Watershed Management Committee Responses to Basin Plan and DEIS Review Comments

Table of Contents

Response to City of Renton	C-1
Response to Muckleshoot Indian Tribe	C-5
Response to Puget Sound Water Quality Authority	C-14
Response to Army Corps of Engineers	C-15
Response to Department of Ecology	C-16
Response to Department of Fish and Wildlife	C-16
Response to Boeing Commercial Airplane Group	C-18
Response to Bob Dixon	C-18
Response to Regina Gilmore	C-22
Response to Hedges & Roth Engineering, Inc.	C-22
Response to Curtis, Lorenz, Lyons, and Tonkin	C-25
Response to Kim Odstreil	C-26
Other Issues	C-28
Response to Donald Anderson	C-33
Response to Miles Langdahl	C-37

Section C:

Watershed Management Committee Responses to Basin Plan and DEIS Review Comments

The following table reflects changes that have been made in the titles and numbers of certain recommendations since February 1995, when the Draft Cedar River Basin and Nonpoint Pollution Action Plan was published.

Old Number/Title (Draft Basin Plan)	New or Revised Number/Title
3151: Elevation of Lake Desire Drive SE	3151: Lake Desire Flood Damage Reduction
BW 10: Pollution from On-Site Septic Systems	BW 10: On-Site Septic System Pollution
BW 14: Public Involvement and Education	BW 14: Water Resources Education and Public Involvement
BW 18: Retention/Detention Standards	BW 19: Retention/Detention Standards
BW 19: Ravine Protection Standard	BW 20: Ravine Protection Standard
BW 20: Infiltration as a Stormwater Mitigation Treatment	BW 21: Infiltration as a Stormwater Mitigation Treatment
BW 21: Erosion and Sedimentation Control Standards	BW 22: Erosion and Sedimentation Control Standards
BW 22: Mandatory Open Space Retention	BW 23: Forest Incentive Program
BW 23: Areal Clearing Limits for Individual Lots	
BW 24: Urban Stormwater Treatment Initiative	BW 18: Urban Stormwater Management Initiative
N/A	BW 17: Aquifer Protection and Base Flow Maintenance

CITY OF RENTON

1. Comments noted.
2. The EIS has been changed according to this suggestion. Evaluation of the environmental impacts of implementation of the Plan with respect to the risk of flooding at the Renton Municipal Airport has been expanded upon by addition to the analysis of impacts from flood hazard reduction Plan elements (Part IV.A.3). Comments regarding the desirability of certain actions by the City of Seattle and the Corps of Engineers are acknowledged; implementation of these actions is

beyond the jurisdiction of King County or the WMC. These actions are the subject of at least three Plan elements (MS 1: Masonry Dam Operations Study; MS 2: Renton Reach Capacity Study; and MS 3: Seek State and Federal Funding for Flood Hazard Reduction Measures.)

3. The status of the lower Cedar River as a Corps of Engineers designated navigable waterway is not directly relevant to implementation of Plan elements; it will be a factor in the studies to be conducted under the three cited Plan elements. The significance of the Renton Municipal Airport as a transportation facility has been acknowledged by additions to the EIS (see response to comment 2); a similar addition has been made to the water quality section to reference the airport within the scope of Plan element BW 9.
4. Discussion of the transportation element of the City of Renton's Comprehensive Plan has been added to the evaluation of consistency section of the EIS (Part V.B).
5. Comment noted.
6. Staff from the City of Renton, King County, Seattle Water Department, and Seattle City Light are meeting regularly to begin implementation of MS 1: Masonry Dam Operations Study. (Note that MS 1 has been expanded to include the goals and objectives of the study.) Anticipated roles and responsibilities of the participating entities are also being decided. A detailed explanation of the technical scope of work, or of funding commitments, were not developed in time for inclusion in the Plan.
7. Comment noted. Additional information on aquifer and water supply was incorporated into the Plan. See BW 1: Aquifer Protection and Base Flow Maintenance.
8. Chapter 5 has been expanded to reference the studies mentioned and the importance of continuing to integrate their outcomes with those of the Plan. Chapter 2 has also been changed by summarizing these efforts. Table 5-1 has been updated to include other partners involved in this work.

It is beyond the scope of the Plan to identify the possible outcomes of these studies and how they might relate to the Plan. Rather, we believe it is incumbent on the entities involved to integrate their proposals with those of the Basin Plan, since the Plan is expected to be adopted before these efforts are complete. Further, numerous opportunities will have been available to integrate their early conclusions into the Plan through the policy and technical level involvement of these entities and review of the draft Plan and DEIS. Another opportunity will occur during the concurrence process when these entities will be asked to commit to the Plan recommendations as the blueprint for resource management in the basin.

9. Comment noted. Recommendations to improve aquifer/groundwater protection were incorporated into the Plan. See BW 17: Aquifer Protection and Base Flow Maintenance.

10. a) Comment noted. The suggestions and recommendations will be evaluated for inclusion to the Plan when submitted. It is unclear what the specific references are to pages 2.4 and 2.7.
b) Although a formal analysis of impacts of urbanization on low flows was not undertaken as part of the *Current and Future Conditions Report* phase of the planning process, the preservation of base flows has been a recognized goal of the Plan. This goal is manifested in BW 21 and BW 23, which recommend roof-downspout infiltration for new development and incentives to encourage landowners to keep their land in forest uses. Also see response to comment 14.
11. The Plan has been changed according to this suggestion, to state that Masonry Dam is the single most important factor influencing Cedar River flows.
12. See the responses to 10b, 14, and 177.
13. Bacterial contamination from the City of Seattle's protected watershed was not considered to be a problem. Contributions of fecal coliform are primarily from the lower and middle watershed from sources and at concentrations as described in the *Cedar River Current and Future Conditions Report* (1993). Sources of *Cryptosporidium* probably include both the wild elk herd in the upper watershed and domesticated bovines in the basin planning area (lower watershed). The City of Seattle is currently conducting a study of *Cryptosporidium* in the upper watershed in compliance with the US EPA Information Collection Rule, for drinking water source protection. Monitoring of *Cryptosporidium* in the basin planning area is beyond the scope of the Plan.

The question of *Cryptosporidium* and fecal coliform loading from wild and domestic animals can be approached by considering what is known regarding infection rates, habitat, and delivery of fecal material to the Cedar River by both groups. There are significant differences that can qualitatively rank the risk to water quality each group poses. Good data on infection rates is scarce for both groups. Most information is inferential. It is known that in domestic herds the calves of the year demonstrate high infection rates shortly after birth and shed *Cryptosporidium* cysts abundantly for several months as their immune systems mature. Some individuals become chronic carriers while others throw off the infection. A similar immunological situation is expected in wild ungulates.

Living conditions present the most striking difference between the domestic and wild animals, and is directly related to their infections rates and delivery of *Cryptosporidium* and fecal coliform to the Cedar River. Domesticated cattle live in confined pastures in densities that frequently exceed the natural carrying capacity of the pasture. Crowded conditions promote higher infection rates for all pathogens. Pastures are frequently located close to natural water courses to provide animals access to water. This arrangement assures the concentration of fecal material and effective delivery of fecal pollution to watercourses. In contrast the elk herd in the Cedar River watershed is not confined and moves freely in search of food. The riparian corridor along the Cedar River below the Masonry dam has not been

logged for 40 to 60 years and presents very little food to attract elk. They also live in small dispersed groups. Thus, the living conditions for the elk are very different from for domestic bovines, which in turn minimizes both infection rates and fecal delivery to watercourses.

In conclusion, it is difficult to quantify the amount of non-point pollution caused by wild and domestic animals living along the Cedar River. One can only approach the problem indirectly by considering the differences in behavior, population density, and living conditions of both groups. Using this approach, it would be illogical to assume that the wild animals living in the Cedar River watershed contribute more than a minor amount of the fecal coliform or *Cryptosporidium* levels seen the Cedar River at Renton. For these reasons, the WMC continues to support the Plan language as written.

14. Minimum instream flows were not made a major focus of the scope of the Basin Plan by the WMC because of the pre-existence of the IRPP process for managing instream flows on the river. Although the reliance of current and future habitat on instream flows is acknowledged, the current Plan language assumes that the Seattle Water Department, fish management agencies and others involved in managing instream flows are sufficiently cognizant and considerate of fish usage and habitat needs to assure adequate instream flows now and in the future. For this reason, the WMC continues to support the Plan language as written.
15.
 - a) The Plan has been changed according to this suggestion, to clarify the definition of "staff" as "County staff," including benefits, in Chapter 5.
 - b) Following adoption and funding of the Plan for implementation, management will reassign staff per the priority actions needed. There may be delays of months in implementing programmatic recommendations however, to enable staff to complete prior commitments, or, in the case of CIPs, to complete higher priority projects.

A detailed implementation schedule will be prepared once there is greater certainty as to the possible sources of funding from local, state, federal agencies and from other sources. This is needed to determine the probability of funding the priorities as proposed. Also, the Plan concurrence process needs to be completed to identify which entities will be involved in implementation. Concurrence will begin following the WMC response to the Plan comments. SWM will then work with entities individually, and with the WMC as a whole, to prepare the schedule. The schedule is not expected to be completed until after the Plan is presented to the entities involved for adoption this Fall. In the interim, the section "Implementation Process: Long-Term Watershed Management" (in Chapter 5) is intended to describe the implementation period for the Core Plan, as occurring during the decade following Plan adoption, assuming adequate funding is available. See also response 174.

MUCKLESHOOT INDIAN TRIBE

16. Comments noted.
17. This matter will be referred to the Cedar River Council.
18. Comment noted. See the responses to 77 and 122.
19. The Plan language has been changed according to this comment, to state that the setting of fisheries production goals is the responsibility of WDFW and the Muckleshoot Indian Tribe, but that the development of these goals involves public input.
20. Comment noted. This is basically a summary of more specific comments that get individual responses.
21. Comments noted.
22. The EIS has been changed according to this suggestion to add the missing word.
23. The EIS has been changed according to this suggestion to add "international"; the WMC agrees that there are resources in the BPA of more than national significance, particularly habitat supporting anadromous fisheries populations.
24. The EIS has not been changed according to this suggestion; adding the suggested section heading does not significantly add to the clarity of the EIS.
25. The EIS has been changed according to your suggestion, to reference a specific set of Plan actions to protect and enhance habitat in the basin.
26. The EIS has been changed according to this suggestion to clarify the purpose of the Growth Management Act.
27. Implementation of the Plan would not affect Flood Insurance availability, a program of the Federal Emergency Management Agency, or the allocation of economic relief by the County or other agencies. Language has been added to the analysis of impacts of the flood hazard reduction Plan elements on housing (Part IV.A.3) to reflect these non-impacts. The executive summary has not been changed.
28. The EIS has been changed according to this suggestion to clarify that the impacts being discussed are cumulative, not synergistic. The EIS has also been changed according to this suggestion to include BMPs and zoning restrictions as cumulative actions. The cited reference (Part IV.A.2.--*Tributary Subbasin Flooding*) does not support removal of the reference to incremental aquatic habitat benefits in tributary basins from R/D ponds. Therefore, the EIS has not been changed according to this portion of the suggestion. Also see the responses to 29 and 118.
29. The EIS (Part IV.A.2.--*Tributary Subbasin Flooding*) does not contain the admission suggested by this comment (that R/D ponds do not work to protect aquatic habitat). The EIS indicates that subbasin flooding will increase substantially unless action is taken to prevent it and that measures are needed to ensure that these increases do not adversely impact aquatic habitat. A number of Plan elements,

- including R/D ponds in the affected areas, are intended to ensure that this objective is met. No change has been made to the Plan or EIS in response to this comment. Also see the response to 118.
30. This comment makes no distinction as to the party paying for the “costs” of housing in the floodplain. No changes in the EIS are called for by this comment.
 31. Plan element BW 19, Level 2 and 3 R/D Standards, is explicitly intended to mitigate for flood duration increases expected from future development and is targeted at subbasins draining to high value aquatic habitat.
 32. Plan elements BW 19, 20, and 21 all indicate that on-site retention (infiltration) is the preferred method of runoff management (i.e., it is required to the “maximum extent feasible”).
 33. Plan element BW 20 provides for direct piping of runoff “on slopes and plateaus that drain directly over steep side slopes of the mainstem.” Further, piping is the secondary method after on-site retention (see the response to 32). Therefore, impacts on groundwater recharge will be insignificant, and impacts on aquatic habitat will be negligible. The EIS has not been changed according to this comment.
 34. The EIS has been changed according to this suggestion to correct the reference to BW 21 (not 26).
 35. The EIS has been changed according to this suggestion to clarify the range of uses of aquatic habitat by anadromous fisheries
 36. Plan elements are intended to prevent flood hazards from increasing in the tributary subbasins, thereby benefiting aquatic habitat values. Also see the response to 31.
 37. The EIS has been changed according to this suggestion to clarify that dredging is only one of a range of options to be studied.
 38. The EIS has been changed according to this suggestion to clarify that the BPA has been extensively, not exhaustively, studied. Although there will always be room for improving our knowledge about current conditions, existing knowledge of water quality and quantity in the BPA is detailed enough to provide a solid foundation for each specific Plan element.
 39. The EIS has been changed according to this suggestion to clarify the Muckleshoot Indian Tribe’s co-management jurisdiction over fisheries resources.
 40. The EIS has been changed according to this suggestion to correct the verb tense.
 41. The EIS has been changed according to this suggestion to clarify the concerns of the fisheries management agencies.
 42. The EIS has been changed according to this suggestion to correct the verb tense.
 43. The EIS has been changed according to this suggestion to clarify the meaning of the sentence.

44. This issue is beyond the scope of the EIS.
45. Comment noted: SWM agrees that a basic process of the floodplain is to move earth downstream. However, in pre-developed conditions, these movements did not conflict with the long-term viability of the aquatic habitat and dependent populations. Furthermore, the reduction in flow in the Cedar River as a result of the operation of the City of Seattle's water supply diversion at Landsburg has increased the relative importance of each increment of sediment moved by the river. Finally, although the County agrees that removal of habitation from the floodplain reduces flood hazards, the Plan does not envision a wholesale "buy out" of the floodplain; even if this was the Plan's goal, resources are not available for such an action.
46. The EIS has been changed according to this suggestion to clarify the meaning of the sentences.
47. Comment noted: The WMC agrees that salmonid habitat within the UGA is important and should be protected and, where possible, enhanced. Various Plan elements move toward this goal. However, the main thrust of the Plan, as well as of the Comprehensive Plan and the underlying GMA, is that natural resource protection and enhancement are more cost effective outside the UGA. Responsibility for habitat protection and enhancement inside the UGA will gradually shift from the County to the various cities (in the BPA, the City of Renton), in which higher densities and consequent environmental impacts are more likely.
48. See the response to 33.
49. The EIS has been changed according to this suggestion to clarify the meaning of the sentence.
50. The EIS has been changed according to this suggestion to correct the references to Comprehensive Plan policy R 215 (not 216).
51. Implementation of Plan element BW 6 (Aquatic Resource Mitigation Bank Sites) would accomplish the goal suggested by this comment.
52. Yes; City of Renton Comprehensive Plan Policies EN-K, EN-52, EN-53, and EN-54 all refer specifically to enhancement as well as preservation of fish and wildlife habitat.
53. This comment suggests that the entire intent section of the SAO be included (KCC 21A.24.010). Wholesale inclusion of that language does not add to the clarity of the EIS.
54. The EIS has been changed according to this suggestion to clarify the responsibility of the state agency (WDFW).
55. The EIS has been changed according to this suggestion to clarify the role of the Muckleshoot Indian Tribe in the IRPP.
56. The EIS has been changed according to this suggestion to clarify the role of the Muckleshoot Indian Tribe in the IRPP.

57. The suggested language changes have been made.
58. The Plan has been changed according to this suggestion. See response 118 for reference to concerns about mitigation of stormwater impacts.
59. The Plan has been changed according to this suggestion.
60. See the response to number 19.
61. Comment noted.
62. The Plan has been changed according to this suggestion. The sentence in question and the Chapter 2 section on Goals and Strategies to Protect and Restore Aquatic Habitat were changed to accommodate MIT and WDFW concerns (see comment 164 in WDFW) by inserting "in a manner consistent with fishery production goals of tribal and state fishery managers. . . ." An additional sentence was added to the paragraph to emphasize that actions to improve salmonid survival in the Lake could be implemented prior to 1998. Additional language has been added to Chapter 1 to reinforce the need to conduct habitat restoration consistent with fisheries management goals and to highlight the value of sockeye.
63. The Plan has been changed according to this suggestion. During the conditions analysis phase of Plan, the term "Lower Cedar River" indicated the reach from Renton to SR-18 while the reach from SR-18 to the Landsburg Dam was termed "Middle Cedar River." To avoid confusion, but still distinguish the basin planning area from the watershed, the language has been changed to "the Cedar River basin below Landsburg Dam" rather than making the suggested language change to "lower Cedar River."
64. The enhanced stormwater control measures could include both increased R/D and water quality treatments. The enhanced measures would apply primarily to new development, however some existing facilities could be retrofitted for water quality treatment enhancements. Unless specifically identified in the recommendations, existing facilities would not be retrofitted for enhanced quantity control.
65. The suggested language change has been made.
66. The suggested language change has been made to clarify the meaning of the sentence.
67. The Plan has been changed according to this suggestion, to provide examples of leveed areas where flood damage has occurred.
68. The City of Seattle land use policy for the Cedar River Watershed was established by ordinance (#114632) in 1989. The land use commitment described in this policy is "to manage the Cedar River Watershed to ensure the supply of high quality water without requiring additional treatment." Other uses that would be encouraged and enhanced in support of the primary objective include species protection, public education, research, habitat conservation, and timber harvesting on city-owned second growth lands. For further information, refer to the 1992 Seattle Water Department Water Supply Plan.

69. The suggested language has been added to recognize that the tribes are involved in developing the Plan.
70. Text adjusted to reflect this comment.
71. Text adjusted to reflect this comment.
72. Text adjusted to reflect this comment.
73. Text adjusted to reflect this comment.
74. Comment noted.
75. The Plan has been changed according to this suggestion, to clarify the habitat impacts of flood control structures.
76. The suggested language changes have been made.
77. According to this suggestion, the Plan has been changed to include flood damage reduction techniques in addition to dredging. See also the response to 122.
78. Text adjusted.
79. Our current knowledge regarding threats to salmonids from increased high flow durations suggests that the most significant effect is one of channel destabilization, erosion, and downstream sedimentation. Duration control R/D ponds are specifically designed to suppress increases in flow energy (for all discharges above 50% of the pre-development 2-year discharge) and prevent this instability. BW 19 recommends duration control R/D ponds in catchments to prevent aggravation of existing erosion problems, protect relatively undisturbed RSRA stream habitat, and prevent damage to channel stabilization and habitat restoration projects. As a result a majority of the perennial stream catchments are currently targeted to receive duration control R/D ponds. The duration control R/D ponds recommended in the Plan should help prevent the mentioned, hypothesized effects including increases in stress levels, suppressed growth rates, increased displacement and mortality referred to in this comment. However, the benefits and technical feasibility of specifically designing on-site R/D facilities to mitigate these potential impacts are not established. Consequently, the Plan uses a range of techniques to maintain creek flow regimes including targeted application of duration control R/D (BW 19), increased stormwater infiltration (BWs 18 and 21), and incentives for forest retention (BW 23). These measures in combination with stream habitat restoration projects (see specific CIP recommendations, Chapter 4) that enhance complexity and provide refugia for fish represent the Plan's approach to addressing the concerns raised in this comment.
80. The concerns expressed regarding infiltration and base flow maintenance are similar to ones raised during the East Lake Sammamish Basin Plan comment period. The language and provisions of the draft Cedar Plan recommendation have been updated to respond to those concerns to the extent feasible. Most notably, infiltration of stormwater is required where feasible as specified by the King

County *Surface Water Design Manual* and feasibility criteria are being liberalized as part of the Design Manual update process.

81. The Plan has been changed according to this suggestion.
82. The suggested language changes have been made.
83. Comment noted.
84. Comment noted. Protection and restoration of aquatic habitat and mitigation of environmental impacts of Plan-recommended projects are goals of the WMC. The performance of implemented recommendations would be carried out under BW 13: Basin Plan Evaluation. See also response to 162.
85. The suggested language changes have been made.
86. Comment noted.
87. To clarify, the language was changed from "These basinwides are recommendations for habitat protection and restoration that apply in more than . . ." to "These basinwide recommendations for habitat protection and restoration apply in more than . . ." rather than the suggested change.
88. The Plan has been changed according to this suggestion.
89. Comment noted.
90. The suggested language changes have been made.
91. The names of the tributaries of each subarea have been included in the paragraph as suggested.
92. The projects are roughly in order of priority.
93. The amount and type of habitat will vary, depending on morphology and hydrology of the site and design considerations. Potential habitat area estimates and fish use will be presented in a separate report that is currently being reviewed by state and tribal fisheries staff. The report will provide conceptual ideas for the projects and allow for prioritization based on cost-effectiveness and fish production goals.
94. The suggested language changes have been made.
95. The Plan has been changed according to this suggestion, to clarify the previous wording.
96. The Plan has been changed according to this suggestion. The following phrase has been added to the end of the first sentence: "... and improve fish access into the Madsen Creek ravine."
97. The Plan has been changed according to this suggestion, to eliminate this recommendation, which is unlikely to be necessary due to completion of improvements to 140th Avenue SE.
98. See the response to comment 118.

99. The problem of flood duration with its associated downstream flood damage, stream erosion, and habitat consequences is addressed in the Plan by a range of techniques that include duration-matching stream protection R/D ponds, encouragement of stormwater infiltration, and incentives for forest retention. See BWs 19, 20, and 23 for explanations of why and where these measures are recommended to be applied in the basin. Additionally, flood durations on the mainstem Cedar river are determined to a significant degree by Masonry Dam operations. Examination of flood durations will be an important component of the scope of any Masonry Dam alternative operations study.
100. The Plan has been changed according to this suggestion. A new paragraph has been added after the first.
101. The Plan has been changed to correct the citation.
102. Comment noted. The low levels of LWD in parts of Rock Creek were noted in the *Conditions Report*. Significant accumulations do occur in some places, however, with RM 0.9-1.2 providing good examples of stream/LWD interactions. Conclusions about the quality of Rock Creek based on watershed analysis methodology and a survey of only a portion of the stream should be made cautiously because of limitations of the method. A more comprehensive assessment of stream processes, conditions, and history should be used to assess Rock Creek's attributes. For example, although the channel has high quality gravel substrate in most areas, it also has areas bedded with cobble and boulder and is springfed in nature, resulting in a very stable hydrology and channel. The diversion of water by the City of Kent and loss of water through an unpermitted diversion near Lake No. 12 probably exacerbates this dampened hydrology by diverting some water from the system. These conditions tend to create an environment relatively low in deep scour pools, which are typically the types of pools that rank high in quality in stream survey methods.

Large woody debris also influences channel form and pool formation. Its recruitment is stochastic and actual amounts observed in a stream channel at any given time can be highly variable depending on successional stage of the riparian forest and lateral erosion by the stream. Timber harvest has occurred in past along Rock Creek and riparian trees are just beginning to be of sufficient age and size to contribute significant new LWD to the channel. In fact, much new LWD was added to the channel during early 1995 due to windstorms. We suspect that the low levels of LWD observed by MIT may also be due to past removal efforts by local residents to improve fish passage in the mid 1970s, when such activity was being promoted by state fish managers.

Aside from concerns about low amounts LWD and shallow pools, Rock Creek has many outstanding characteristics including extremely stable flows, little erosion, a large amount of very clean spawnable substrates, high quality riparian vegetation, and high benthic invertebrate diversity. An ongoing study by the University of Washington evaluated about twenty Puget Sound lowland streams, including Rock

Creek, to assess land use affects and develop an index of biological integrity (IBI). Preliminary results of this work confirm that Rock Creek is in fact an extremely high quality environment.

103. Comment noted. Table 5-1, Chapter 8, identifies participants in basin plan projects. All projects with potential fish impacts include MIT as a partner.
104. The Person Revetment is a major contributor to the sediment build-up in the Renton Reach. However, preventing sediment from this source alone would not have averted the problems in Renton since historic records indicate that sediment was accumulating in the Renton Reach prior to events at the Person Revetment.
105. Comment noted. This proposal has not been submitted for review. See responses 111 and 114 for additional concerns about egg box proposals.
106. See the response to 97.
107. Wetland 16 forms the uppermost headwater of Madsen Creek. As such, its outlet is small and probably of little or no value as anadromous habitat, although resident trout may be present.
108. Comment noted. Proposed changes were not incorporated because Project 3140 deals specifically with road flooding and associated water quality and habitat impacts. Sockeye migration blockages were not identified in our past surveys nor mentioned previously by either the MIT or WDFW. As with MIT, King County surveyors found sockeye use stopped at about SR 18. Neither the SR 18 culvert or the culvert under SE 215 St. are believed to be blockages, however, since coho salmon were observed upstream of both and, on one occasion, our surveyors saw sockeye between SR 18 and SE 215 ST. The SR 18 culvert is baffled and not considered of sufficient gradient to block sockeye, although at very high water it is probably a barrier due to high velocities. No LWD jams sufficient to block sockeye are known to be present. Unexplained limitations in upstream sockeye migration can also be found on Rock Creek and Peterson Creek. On Rock Creek, sockeye use ends at about RM 0.9 and on Peterson Creek at about RM 1.2. There are no obvious barriers at these points. A possible reason for lack of use is insufficient spawning escapement to seed upstream habitat.
109. The Plan has been changed according to this suggestion, to include reference to mitigation.
110. The Plan has been changed according to this suggestion.
111. This suggestion was not included for two reasons. First, the intent of BW 5 is to facilitate small scale habitat oriented projects . Secondly, egg boxes were not identified as a solution in previous scoping meetings for the Plan.
112. The Plan includes many recommendations in which large woody debris would be added to stream channels. This would provide pool habitat for adult holding and juvenile rearing/refuge as well as reduce erosional problems.
113. See the response to number 19.

114. Comment noted.
115. MIT has been added to the list of cooperating agencies in BW 11: Livestock Keeping Practices.
116. The Plan has been changed according to this suggestion, to clarify the intent of annual capital project reviews in basin plan evaluations.
117. The Plan has been changed according to this suggestion, to expand on sources and types of data to be included in basin plan evaluations.
118. The proposed standards are based on our observations of stream channel erosion and flooding responses to development induced hydrologic change and are intended to eliminate or minimize future flooding and erosion impacts to people and fish relative to threat to people and value of the downstream resources. Catchments with the highest quality habitat (i.e., significant resource areas) or where people or critical public structures are at risk will get runoff protection measures considerably more restrictive than currently required. To be sure, our understanding of the full range of physical and biological responses to varying degrees of land development is incomplete. Short of stopping all development, there is no guarantee that all cumulative effects on salmonids can be prevented. While it is clear that high density development has significantly affected the suitability of many habitats for fish, the threshold of development induced hydrologic change for this impairment is not known except as it relates to degradation of channel conditions or acute water quality problems. For example, it is not known that high flows of slightly longer duration are problematic if they do not result in greater channel instability and if adequate refuge habitat is available. To avoid these impacts, the Basin Plan recommends projects (such as LWD additions, and floodplain habitat development) and policies (incentives for forest retention, infiltration) that complement BW 21. Where these actions can be implemented without risk to people or critical structures, the result should be much more natural, low cost stream channel conditions. By managing for natural levels of channel roughness and complexity, habitat critical to all life history stages of salmonids, including critical high flow refuge habitat should be available. The proposed Basin Plan Evaluation (BW 13) is intended to provide the information necessary to assess this approach and, if it's not working, then changes should be made as necessary to protect fish.
119. See response to Comment 80.
120. Text changed to reflect comment.
121. Comments partially reflected by modified text.
122. The Plan has been changed according to this suggestion, to reduce emphasis on dredging.
123. The final *Salmonid Habitat Restoration and Enhancement Opportunities* report will provide maps. A draft of the report, which did not include maps, was sent to Eric Wagner of MIT in late April; a copy of the final report is forthcoming.

PUGET SOUND WATER QUALITY AUTHORITY

124. Comments noted.

SEATTLE WATER DEPARTMENT

125. Comments noted.
126. The EIS has been changed according to this suggestion to correct the reference to the City of Seattle's action regarding the BPA.
127. The EIS has been changed according to this suggestion to clarify the paragraph.
128. The EIS has been changed according to this suggestion to clarify the sentence.
129. The EIS has been changed according to this suggestion to correct the historical reference.
130. The EIS has been changed according to this suggestion to correct the reference to the scope of Plan element MS 1.
131. The Plan has been changed according to this suggestion, to include changes in channel configuration during floods as an additional cause of gage inaccuracies.
132. The hydrologic analysis performed by SWM staff for the *Current and Future Conditions Report* compared current mainstem discharges with modeled flows under both mitigated and unmitigated developed conditions, which assumed full development under then-current zoning. Discharges under the most highly developed condition exceeded current discharges by less than five percent. Based on this finding, SWM staff believe the statement that "discharges in the Cedar River are only slightly affected by flows in the tributaries" is accurate as presented in the Draft Plan, and for this reason the WMC continues to support the Plan language as written.
133. The \$66,000 noted in the Plan reflects County costs for an estimated 0.1 additional King County FTE per year over five years to support the study, over and above existing SWM work plans. It is not possible to estimate the full cost for this study until a final scope has been developed. At the time of this writing, staff from King County, Seattle Water Department, Seattle City Light, the City of Renton, and the Corps of Engineers are working to refine a final scope. Until this process is completed, the WMC continues to support the language of the Plan as written.
134. The language of the Plan has been modified to more clearly identify SWD as the lead entity for the Masonry Dam Study.

ARMY CORPS OF ENGINEERS

135. Comment noted.
136. This request will be referred to the Cedar River Council.
137. SWM and COE use different techniques for estimating the 100-year discharge. The effect of the resulting discrepancy in the delineation of the actual 100-year floodplain is minor. Because all County development restrictions and permit requirements are based on the current FEMA floodplain delineation, which is unaffected by either the COE or SWM analyses, the WMC continues to support the Plan language as written.
138. See response to 136.
139. The Plan has been changed according to this suggestion. MS 3 has been changed to "Seek State and Federal Funding for Flood Hazard Reduction Measures."
140. The possibility of using a design event smaller than the 100-year flood is explained in the text of recommendation MS 2, in the paragraph that follows the three goals. The second portion of this comment is incorporated in Chapters 2, 3, and 4 (as appropriate) to note that federal funding may be eliminated before the study's recommended alternative can be implemented.
141. Comment noted.
142. Comment noted.
143. See number 139.
144. Yes. See MS 2 in the "Core Plan Programmatic Recommendations" section of Table 5-1.
145. See response to 137.
146. The EIS has been changed according to this suggestion to add reference to the noted flooding.
147. Comment noted.
148. The EIS has been changed according to this suggestion to indicate that the flood hazard will increase under the no action alternative.
149. The Plan states that "establishment of a mitigation banking program will require the active participation of many local, state, and federal agencies. . . ." The Plan has been revised to note that gaining approval for the proposed mitigation banking program from all agencies with regulatory authority (including the Corps) will be a lengthy process.
150. Comment noted. The law requires that stormwater be routed along its historical path; many times this path carries it into a wetland. BW 3:Wetland Management Areas, would place new forest retention, water quality and quantity treatment, and

buffer requirements on new development in catchments that drain into these wetlands.

- 151. See response to 137.
- 152. Comment noted. This estimate, like the one in the draft Plan, is useful primarily as an order of magnitude comparison.
- 153. Comment noted. See response to 137.
- 154. See response to 134.
- 155. See response to 152.

DEPARTMENT OF ECOLOGY

- 156. Comment noted.
- 157. The Plan has been changed according to this suggestion and will include a discussion of the necessity to maintain a balance between water quality and other issues. It is true that one (of three) public workshops focused on some controversial flooding issues. However, these controversial issues brought attention to the entire plan and provided a mechanism for people to consider water quality issues. The other workshops were much more balanced and several water quality issues were discussed.

DEPARTMENT OF FISH AND WILDLIFE

- 158. Comment noted. Thank you, but please note that this is a product of many others including your staff. We are appreciative of your assistance.
- 159. Comment noted.
- 160. Comment noted. A separate draft report on the habitat opportunities identified in the Plan, their potential production and economic value, and considerations for design, implementation, and monitoring is currently being reviewed by technical agencies including WDFW. This report will serve as a technical supplement to the Plan and help implement habitat projects in a manner consistent with state and tribal fishery management goals.
- 161. The Plan has been changed according to this suggestion. Language reinforcing the need to manage for "all species, in concert," and "in a manner consistent with fishery management goals" has been added to the Plan. Specific language on production goals is in the *Cedar River Current and Future Conditions Report* and was not included, however, because it is beyond the scope of the document (see response 164).
- 162. A detailed comprehensive monitoring plan was not developed for the Plan because it has not been adopted by any of the local governments and, as a result, Plan actions are not known with any certainty. The Plan recognizes the need to monitor

Plan actions and changes in habitat and biology of the basin, however, and BW 13 calls for monitoring of the basin. Your agency and others will be asked to review the planning of any such monitoring and encouraged to help in funding and implementation. As projects are implemented, reasonable monitoring schemes will be conducted as required in permits. The Plan also supports the Lake Washington Studies (BW 7), including assessment of the lake and sockeye fry trapping activities recommends an annual report be produced by the Basin Steward summarizing basin conditions and the effectiveness of the Plan in improving fish habitat and meeting other Plan objectives.

163. Comment noted.

164. Comment noted. See responses to 62, 88, and 162. Because the Plan is a surface water management and nonpoint pollution plan and not a fisheries management plan, it does not cover fishery management objectives in detail. Early attempts to include fish management issues were not favored by your agency and MIT. Regardless, language has been added to emphasize the need to coordinate Plan activities with fishery managers.

The suggestion that the Plan has not spent time considering these issues is not correct. In fact we are not aware of any other group of local governments in the state that has spent as much time voluntarily addressing salmon protection and restoration issues. The draft report on habitat opportunities, which is currently being reviewed by WDFW, MIT, and others is the most comprehensive analysis of fish habitat restoration and enhancement opportunities for any river system of this size of which we are aware. It required a great deal of staff time and financial resources and demonstrated that, in fact, the planning process has spent a great deal of time assessing fisheries concerns related to habitat development. In addition to this report, the Cedar River Basin Planning process has produced issue papers on the importance of the Cedar River to Lake Washington and on Land and Fish Management Concerns.

Finally, it should be noted that, although many habitat restoration and enhancement opportunities are identified, it is not proposed anywhere in the Plan - nor is it considered realistic - that projects be implemented without consideration of the goals of state and tribal fishery managers. While the emphasis on sockeye salmon is—and has been—clear, an integrated strategy that places this goal in the context of other biological goals such as maintenance of biodiversity and production of salmonids other than sockeye has not been provided by fisheries managers despite the request for this in technical and policy forums. The lack of a such a plan has led to some of the conflicts surrounding fish management issues, since the Cedar River produces several other important fish species, some which are severely threatened or may become listed under the federal Endangered Species Act. This could have severe consequences to the operation of local governments. As has been demonstrated by local governments involved in the Plan, agencies are willing to work with fish managers to find workable solutions and nothing in the Plan is meant to supersede the fishery management authority of WDFW and MIT. We

agree with your reference to the caveats stated in Salmon 2000 report - that an adaptive management approach based on knowledge, prudence, and a cautious, stepwise implementation strategy is the correct way to success. This is the current approach in the sockeye restoration plan and it is what King County's Basin Plans have advocated for years.

- 165. Appropriate permits and mitigation measures will be sought for all planned projects. The Plan does not advocate illegal activities.
- 166. Comment noted.

BOEING COMMERCIAL AIRPLANE GROUP

- 167. The Plan has been changed to delete the reference to your company.
- 168. The Plan has been changed to reflect the elimination of the non-contact cooling water discharge.
- 169. This recommendation is for the WSDOE to review the Stormwater Pollution Prevention Plan (SPPP). DOE has inspected the facility and reviewed extensive stormwater monitoring data in the process of eliminating the industrial waste NPDES permit, but has not reviewed the SPPP. SWM staff has discussed this with WSDOE and it was agreed that it would be a good idea to review the SPPP.
- 170. Comment noted.
- 171. Comments noted.

BOB DIXON

- 172. Comments noted.
- 173. The delta of fine sediment deposited at the mouth of the Cedar River was removed by the City of Renton in 1993. The effect of this material on flooding in the lower river was minor, according to a study done for the City by NHC; it was removed primarily because it attracted birds that interfered with aircraft using the Municipal Airport. Sediment within the channel proper is a much more significant factor contributing to flooding of this reach. MS 2: Renton Reach Capacity 205 Study (in Chapter 4) describes measures intended to reduce flooding of this reach, but see response to 140.
- 174. The purpose of the draft Plan was to give potential Plan implementing entities and the public the opportunity to evaluate the priorities, outcomes, and the partnerships involved to decide if the Plan adequately addresses the issues. It would be premature to assign costs before entities could make this determination. After the Plan is revised in response to the comments, the next step is to seek statements of

concurrence, or agreement, from the potential implementing entities involve. These entities are identified in Table 5-1 of the Plan. In the concurrence process, entities would be asked to commit to participate in implementing the Plan which, in turn, would lead to interagency agreements for sharing costs and/or other resources. See also response 15.

175. Since the Plan proposes actions to solve public flood, habitat, and water quality concerns, a major source of the implementation funds are expected to come from local, state, and federal tax dollars. To clarify potential sources of local revenues, Chapter 5 has been expanded to include alternative measures for raising the revenue needed so larger matching sums can be obtained through publicly funded grant programs. However, Plan implementation does not rely solely on these sources. Contributed funds, labor, and equipment will also be sought through private foundations, corporations, and general public partnerships. Also, to minimize the funds needed, it should be noted that the WMC took great pains in selecting solutions that would be cost effective, reduce long-term maintenance cost, and maximize public benefits. See also Chapter 5 and responses 199 and 225.
176. Masonry Dam is operated by Seattle Water Department (SWD) for the primary purpose of municipal and industrial water supply and, to a lesser degree, electrical power generation. Their operation of the dam also provides a degree of peak flow reduction during floods. MS 1: Masonry Dam Operation Study, recommends a study of the costs and benefits of altering dam operations, in terms of flood reduction, habitat protection, and regional water and power supply.

During the course of developing the Basin Plan's recommendations, a number of alternatives were evaluated for each significant problem identified in the *Current and Future Conditions Report*. The issue of increasing the capacity of the reservoir behind the dam has been under study by SWD for many years. The principal obstacle to raising Masonry Dam is a geological feature called a glacial moraine that allows water to leak from the reservoir into surrounding soil. When leakage is too great, catastrophic damage can occur in Boxley Canyon, in the Snoqualmie basin. On the other hand, since moderate leakage into the moraine is re-released into the Cedar River above Landsburg, it can provide significant additional reservoir capacity.

Most recently, in its *Comprehensive Regional Water Supply Plan* (May 1992), SWD evaluated an option called the Cedar High Dam, which would have increased the storage available in Chester Morse Lake, behind the Overflow Dike upstream of Masonry Dam. The estimated cost for this proposal was \$180.4 million (1991 dollars). Neither method of increasing reservoir capacity was treated in more depth in the Plan because both are very unlikely to happen within the Plan's effective life. For this reason, the WMC continues to support the Plan language as written.

177. Comment noted. As you state in your letter, surface area of the mainstem Cedar River has been reduced through various human actions, as flows have been. As shown in the *Cedar River Current and Future Conditions Report*, mean monthly

flows have been reduced by 7 to 40 percent between July and October mainly because of Seattle's water supply operations. This level of reduction is not disproportionate with the reduction in surface area of the river and actual mean monthly flows are higher than normal instream flow targets that have been set by the Department of Ecology (DOE) for the Cedar River. The "periods of low water" noted in your letter typically result from drought years with below average snowpack and rainfall. DOE, the Seattle Water Department, the Corps of Engineers, and fish management agencies including the Muckleshoot Tribe, Department of Fish and Wildlife, U.S. Fish and Wildlife Service, and the National Marine Fisheries Service make up the Cedar River Instream Flow Committee. This committee confers on instream flow issues including setting flow targets and coordinating with water conservation efforts during drought years.

Currently, this cooperative approach appears to be the preferred mode of managing low flows for all parties, although the potential for more adversarial actions such as those referred to in your letter can never be completely discounted in the arena of scarce resource management.

In the case of Rock Creek, the City of Kent has agreed to attempt to augment low flows above those required by their groundwater permit and to cooperate with King County to monitor benefits of this flow augmentation to salmonid habitat (see recommendation RC 1 for details). Although the augmentation program is experimental and may not result in the best long-term solution for providing adequate instream flows on Rock Creek, the cooperative approach appears to have the best chance of making significant and timely improvements to the current condition of Rock Creek.

178. a) See the response to 15. Cost sharing between entities will be negotiated after the Plan is adopted.
- b) The houses in the areas of worst flood hazard, which are those included in the Basin Plan's relocation recommendations, are generally those within the 10-year floodplain.
- c) King County will continue to maintain the levees and revetments it is legally responsible for along the Cedar River.
179. a) See the response to 178c.
- b) The WMC agrees. In fact, the Plan states that "... substantial aquatic habitat and water quality elements are included in ... flood-related recommendations wherever possible" ("Goals and Strategies to Reduce Flood Damage," Chapter 2 of the Basin Plan).
180. Construction is allowed in the floodplain as long as it conforms to the County's Sensitive Areas Ordinance (SAO), which restricts hazardous actions and those that would raise the 100-year flood stage or endanger occupants. No "grandfathered" (pre-SAO) permits remain open in the areas of the floodplain identified for buyout

recommendations. Uses allowed by the SAO are very unlikely to qualify for purchase under the Plan.

181. The Plan has been changed according to this suggestion, to clarify that the temporary sockeye hatchery at Landsburg been operational since 1991.
182. Comment noted: see response 181.
183. During is recent highway widening, WSDOT replaced the pre-existing culverts that carried ground seepage and tributary flow under the highway from the south. Pavement runoff leaving the new culverts flows through roadside ditches, then through vegetation north of the highway before reaching the pond. Thus, although the ditches were not designed as bioswales, some degree of biofiltration is achieved. WSDOT has agreed to examine the possibility of increasing the level of biofiltration at these sites. This commitment is reflected by new language in MS 11: Treatment of Interstate 405 and SR-169 Stormwater.
184. Parcels such as the Wilderness 50/Wilderness Retreat site that are purchased in fee by King County in order to protect natural resources are removed from the tax rolls. When the county purchases conservation or other kinds of easements, the parcels stay in private ownership and on the tax rolls, but taxes are reduced. When a stream or river reach has been designated for enhanced protection or restoration through the county's Waterways 2000 program, county staff contact each landowner along that reach in order to determine whether he or she wishes to participate on a voluntary basis. All landowners in the county whose property meets the criteria for property tax reduction under the Public Benefit Rating System (PBRs) may enroll their properties in this program on a voluntary basis. When tax reduction is granted in exchange for enrollment in the PBRs system, participation in Waterways 2000, or sale of an easement for any other purpose, the amount of reduced taxes is spread incrementally to all other land parcels in King County so that the total assessed valuation of all parcels countywide does not change.
185. CIP 3123 is in complete agreement with current City of Renton plans.
186. Currently, the City of Seattle has the only active NPDES industrial waste (point source) permit in the Cedar River for the discharge of chlorinated water from clean-out point in the water supply pipeline. SWM has recently reviewed an extensive plan to ensure that there will not be an impact to the resources. The Boeing Commercial Airport has recently eliminated non-contact cooling water from their discharges, and WSDOE has subsequently eliminated their (point source) NPDES permit. Please refer to the *Cedar River Current and Future Conditions Report* for further information of point sources in the Cedar River basin. It is our belief that DOE is adequately handling these NPDES permits.
187. a) When the Basin Plan is adopted and the regulation takes effect, DDES is required to implement regulations when the adopting ordinance takes effect.

b) BW 14: Water Resources Education and Public Involvement, has been changed to include information about the potential effects of the Cedar Basin on Lake Washington.

REGINA GILMORE

188. Comment noted.
189. According to the 1990 King County Sensitive Areas Map Folio, Molasses Creek is a Class II with salmonids up to about 140th Ave SE (RM 2.2) and should receive appropriate protections as required under the SAO. Staff of King County and Washington Department of Fish and Wildlife have observed trout above the culvert blockage at RM 0.8 which is the primary impediment to anadromous salmon. The culvert under the Seattle Water Department Waterline and forms the outlet of an instream retention/detention pond. Removal or modification of this blockage was not recommended in the Plan because of the high cost relative to the amount and quality of habitat that would be made available.
190. Comment noted. King County Roads and Engineering Division has been notified of this chronic problem.
191. Comment noted. The problem has been reported to King County Water Quality Compliance. For future information, any water quality complaints can be resolved by calling 296-1900.
192. Thank you for your offer to help improve Molasses Creek. This is exactly the kind of public concern and sense of responsibility for the basin that the WMC envisioned in developing the recommendations to increase public involvement in the basin. The Basin Steward, Anne Biklé, will contact you to arrange a project with your neighbors. If you would like to contact her, please call 296-1908.

HEDGES & ROTH ENGINEERING, INC.

193. See the responses to 202 and 203.
194. Text modified to remove inconsistency pointed out by comment.
195. See the response to 207.
196. The final draft of the *Lake Desire Management Plan* has been completed. Septic system recommendations were coordinated between the *Lake Desire Management Plan* and the Cedar River Basin Plan.
197. See the response to 209.

198. The buffer requirements set forth in the King County Sensitive Areas Ordinance for Class 1 wetlands and streams are minimum buffer widths. The ordinance allows expanded buffer requirements where warranted to protect sensitive areas.

As stated in the Plan, much of the scientific justification for 150 foot buffers in wetland management areas (WMAs) is based on recent findings of the Puget Sound Wetlands and Stormwater Research Program (see "Selected Puget Sound Wetland and Stormwater Research Program Publications" in the Plan bibliography), and on a review of observed stream channel conditions presented in the *Soos Creek Basin Current Conditions Analysis* and the *Hylebos Creek and Lower Puget Sound Basins Current and Future Conditions Report*. These studies showed a high degree of correlation between serious aquatic habitat degradation and contributing impervious areas greater than eight percent. In addition, basin plan hydrologic modeling shows that maintenance of soil infiltration and storage capacity through retention of forest vegetation in catchments draining to lakes and significant resource areas (SRAs) is the most effective way to maintain the hydroperiod of these waterbodies.

Beyond the high inherent quality of the five wetlands for which WMAs are recommended, four of these wetlands (14, 15, 28, and 32) drain directly to lakes and other SRAs, one of which, Lake Desire, has serious flooding and water quality problems that will require substantial future expenditures (detailed in the *Lake Desire Water Quality Management Plan*) to address. The fourth, Wetland 16, forms the principal headwater of Madsen Creek, which, as described in the *Cedar River Current and Future Conditions Report*, has undergone severe damage from increased stormflows, landsliding, and sedimentation. So far, Metropolitan King County and its predecessor agencies have spent approximately \$5 million to repair this damage. In light of the extreme sensitivity of these resources, we feel the 150 foot buffer requirements are well justified and that the extra 50 feet will indeed better protect not only these wetlands, but also downstream SRAs.

199. a) The full Basin Plan of all the recommendations is expected to cost \$85 million. However, the Watershed Management Committee did not view this sum as obtainable, so they proposed the "Core Plan" of the highest priority recommendations. The Core Plan estimated cost is \$66.5 million. Plan implementation relies heavily on establishing broad public and private partnerships in four major ways: 1) SWM would contribute available revenues from its capital bond program; 2) the Cedar River Watershed Council (CRWC) would seek grants from federal, state, and private sources, 3) the CRWC would also encourage the general public and the private sector to support activities through contributions of labor, equipment, and supplies; and 4) a number of incentive programs would encourage the public and private sector to protect resource areas. For further information see BWs 15-17 and Chapter 5.
- b) Private sector costs arise primarily from compliance with drainage control standards (BW 12 and 19-21) for new uses. These recommendations mirror those of the proposed King County *Surface Water Design Manual*. Implementation costs

will vary depending on the sensitivity of the receiving system, but overall they are comparable to the 1990 Manual costs, and in some cases, they are less. This is due to the fact that water quality and volume controls can be combined into single facilities.

- 200. Comments noted.
- 201. A range of R/D requirements is recommended for this subbasin depending on the catchment's current and anticipated future conditions. For an explanation of the reasoning behind a catchment's recommended R/D level, please see Table 4-3 of the Plan.
- 202. One of the purpose for higher levels of R/D in P6 and P7 is to control sediment and phosphorus loading to Lake Desire as noted in this comment. However, there is no conflict with the *Lake Desire Management Plan* (LDMP). The recommended R/D facilities control increases in erosive flows that scour and destabilize channels. This complements the LDMP's focus on nutrient loading increases resulting from source areas such as new streets and lawns. The LDMP and Basin Plan were coordinated and their recommendations are consistent, complementary and non-overlapping.
- 203. As explained in comment response 202, the R/D requirement has multiple function: to prevent channel erosion and delivery of additional sediments and nutrients to the lake as well as to reduce existing problems with high lake levels which are not confined to road flooding, but include property damage around the periphery of the lake. Removal of the beaver dam will reduce the frequency of lakeshore problems from an annual frequency to a 2-year frequency. The recommended R/D standard is designed to prevent increases in lake level related problems as land use in the basin changes.

Level 3 R/D is estimated to be require 10 to 15 percent additional volume over Level 2 R/D.

With its existing and anticipated future water quality and lake level problems, the Lake Desire watershed is not an appropriate location for "less restrictive performance curve(s)".

- 204. Text modified to corrected noted inconsistencies.
- 205. See the response to comment 198.
- 206. The writer expresses a concern about the feasibility of meeting the WMA impervious limits on smaller lots. The text has been modified in accordance with this concern to apply only to low urban density (1 du/ac) or rural zones.
- 207. The intent of this recommendation is to reduce pollutant inputs from high intensity land use areas, including roads and urban areas. Implementation includes labor-intensive source control programs to prevent pollutants from entering the drainage system, and treatment and maintenance actions to provide partial removal of pollutants. To understand the specific needs, the constructed drainage system will be mapped using intensive field surveys, similar to what is being done in other

urban areas of the county for the municipal stormwater NPDES permit. This mapping and field survey will reveal illicit connections to the drainage system, other water quality problems, and potential for improvements would be determined. The role of the King County Solid Waste Division and Seattle-King County Department of Health are primarily to support household hazardous waste programs.

208. See response to 196.

209. The water quality treatment standards recommended in this Plan are consistent with the proposed updated *KC Surface Water Design Manual* (1996). In the manual, there is a "lake protection" treatment menu in which one or a train of treatment BMPs can be chosen to meet the 50% phosphorus goal. This menu provides flexibility and allows for the developer to choose the options that best fit the situation. The menu includes BMPs such as filter strips, swales, wetponds, sand filter, and infiltration. More details and design specifications can be found in the updated *Surface Water Design Manual* (1996).

The example you give is only within the Lake Desire watershed, which is very sensitive to increased phosphorus concentrations. This was recognized in the *Soos Creek Community Plan* as a P-Suffix condition and requires that AKART (all known available and reasonable methods of prevention, control, and treatment) be met. To meet AKART, and achieve a 70% phosphorus reduction goal, the above BMPs would be used in combination with a sand filter. SWM is responsible for interpreting the p-suffix condition and provides recommendations to DDES for all developments that are within the p-suffix condition area; areas draining to Lake Desire which are within the urban growth boundary.

DDES enforces these treatment standards by implementing the *KC Surface Water Design Manual*. Performance of the BMPs are not usually measured after construction, unless it is a MDP (Master Drainage Plan). It is assumed that if the BMP is constructed and maintained properly it is meeting the performance goal.

210. Comment noted.

CURTIS, LORENZ, LYONS, AND TONKIN

211. Comment noted.

212. According to SWD, high release rates through Masonry Dam on November 24th and 25th, 1990, were the result of a combination of high reservoir levels from earlier storms, large reservoir inflows, equipment failure, and emergency operations changes necessary to clear a debris jam at the Landsburg Diversion. This event, whose peak flow was estimated at approximately 10,600 cfs in Renton, is considered the flood of record on the Cedar River. The inclusion of this event in the flow record for the river caused SWM to revise its estimate of the 100-year flood discharge from 8100 cfs to 11,100 cfs measured at Renton.

Because the WMC established the 100-year event as the “design event” for determining which areas were subject to hazardous flooding, the Maplewood recommendation was included in the Plan. However, recommendation MS 1: Masonry Dam Operations Study, will be completed before any acquisition of construction is undertaken for the proposed Maplewood Levee. As a result of this study, a new dam operating strategy providing improved protection from flooding could be instituted by Seattle Water. In that case, the Maplewood Levee recommendation would be reevaluated for priority, cost, and continued compliance with Plan goals and objectives.

For these reasons, the WMC continues to support the Plan language as written.

Neither SWD, SWM, nor the WMC agree with the characterization of Masonry Dam operation as “improper” during the November 1990 flood.

213. The WMC goal for flood damage reduction is to “eliminate hazards to human life and limb from flooding” up to the 100-year event. As explained in the response to comment 212, the November 1990 flood is considered to be somewhat smaller than the 100-year event. Floodwaters at that time were reported to be as much as 2-1/2 feet higher than the bank at this location, and would have posed a significant risk to inhabitants of as many as 60 houses in this neighborhood if emergency sandbagging had not been successful.

While the likelihood of a repeat of the 1990 flood is small, the damage at this location during such an event could be significant. For this reason, the WMC has chosen to retain this recommendation, albeit at relatively low priority, in the Basin Plan.

KIM ODSTRCIL

214. Substantial parts of the Plan and its implementation costs are devoted to correcting past problems. Water quality and flow control regulations for new development will be central to preventing degradation (BW 12 and 19-22). All development projects must be reviewed for compliance with drainage codes. See also “Guiding Development Through Regulation” in Chapter 5.
215. The Metropolitan King County Council followed the policy direction identified in the Soos Community Plan, which designated the Lake Desire catchment “Urban.” In doing so, however, they maintained the community plan requirement of a special (“P-suffix”) condition for development in this catchment. This condition requires new development to install stormwater controls that would protect Lake Desire. For further information, see BW 12: Sensitive Lake Treatment; BW 19: Level 3 - Lake and Wetland Peak Stage Frequency and Duration R/D; and the Lake Desire Management Plan, available by calling SWM at 296-6519.
216. Comment noted.

217. See comment 214.

DONALD ANDERSON

218-226. See attached response letter, beginning on page C-33.

MILES LANGDAHL

227. See attached response letter, beginning on page C-37.

OTHER ISSUES

A number of issues were raised external to the formal review process, or after the comment period was over.

Many rural residents in the Cedar River basin raised concerns about the clearing regulations originally proposed in the Draft Cedar River Basin Plan published in February 1996 (originally BW 22: Mandatory Open Space Retention and BW 23: Areal Clearing Limits for Individual Lots). Through newspaper articles, letters to the editor, a meeting with the Greater Maple Valley Community Council on October 2, 1995, and phone calls to King County Surface Water Management staff, the following issues were raised:

- Some residents felt that the assumptions used to predict future forest cover and to develop the proposed clearing restrictions were too pessimistic. They felt that it was unrealistic to assume that all the trees which could be cut under current regulations would be cut.
- Residents felt that landowners of small lots would be severely limited in the use of their property for gardens, pastures and other rural activities under the proposed clearing restrictions. Therefore the proposal was not supportive of rural lifestyles and in conflict with the King County Comprehensive Plan.
- Some citizens felt they were not sufficiently informed or involved in developing the clearing regulation recommendations.
- Some rural landowners believed that they were being asked to protect the bulk of the resources in the basin compared to their urban counterpart. They also felt that urban and large scale rural development are the major causes of degradation in the basin.
- Property owners wanted to be compensated for what they saw as lost land value under the proposed clearing restrictions.
- Some residents felt they were being penalized for being good stewards of their land by still having trees on their property.

In response to the concerns summarized above, staff from King County Surface Water Management met with citizens concerned about the proposed regulations and with their input crafted an alternative package of incentives to help land owners keep their land in forest use. Rural residents felt the following would be incentives to keep their land in forest over the long-term: tax relief; direct assistance; stewardship classes and a Master Forester Program; a working forest demonstration site; and simplified county clearing permit processing. As a result the revised Cedar River Basin Plan replaces the proposed clearing regulations with a Forest Incentive Program including the listed incentives. See BW 23 for details. Also two Open House Meetings on March 11-12,

1996, were held to let people learn about the Cedar River Basin Plan. A Town Hall meeting with County Executive Gary Locke was held on March 13, 1996, to allow citizens to comment on the new Forest Incentive Program and the revised Cedar River Basin Plan.

Public comments at the Town Hall meeting on the Forest Incentive Program approach were generally positive. Residents felt that it was a step in the right direction. Other issues raised concerning the Cedar River Basin Plan include:

- How will the Forest Incentive Program be evaluated for success?
- Support for the voluntary buyout program and impatience at how long it is taking to be implemented.
- Masonry Dam should be operated to provide better flood control.
- Cedar River should be dredged to provide greater flood control.

Other issues were raised which are not within the scope of this FEIS, such as a drinking water problem at the Cedar Grove Mobile Home Park.

Responses to the issues raised at the Town Hall meeting:

- The success of the Forest Incentive Program will be evaluated over five years by the Cedar River Council with input from the community. For details on the benchmarks to measure success see BW 23.
- Comments noted.
- The City of Seattle, King County and the City of Renton have agreed to study Masonry Dam operations to produce flood season guidelines for operating the dam for flood control. See MS 1.
- The feasibility of dredging the Renton Reach of the Cedar River for flood control will be addressed by the Renton Reach Capacity 205 Study, see MS 2. The WMC does not support dredging of the Cedar River in other reaches. Dredging would be very expensive and would not have a significant impact on flood control. It would be very difficult to get the necessary permits due to the habitat damage dredging would cause and dredging would have to be redone frequently.

The City of Renton submitted a number of late comments, dealing primarily with groundwater recharge and aquifer protection. Changes resulting from these comments are reflected in the revised Plan, but since they were received well after the comment deadline, they are not presented formally.

The following is a summary of responses to Renton's principal concerns.

- An executive summary was created by summarizing the key points from Chapter 1.
- The Plan was changed to more explicitly acknowledge groundwater recharge and aquifer protection as important results of the Plan. Aquifer protection was added as a fourth "major condition" in Chapter 1, a new section titled "Aquifer Protection" was added to Chapter 2, and BW 18: Aquifer Protection and Base Flow Maintenance, was created. These additional sections are intended to pull together existing recommendations in the Plan and coordinate other aquifer protection processes.

Recommendations that propose new regulations or changes to existing ones are summarized in the Executive Summary and in Chapter 5.

- BW 14: Water Resources Education and Public Involvement, was expanded to include aquifer protection and to present surface and groundwater issues to the public in an integrated fashion.
- BW 18: Aquifer Protection and Base Flow Management, was added.
- SWM, SWD, and the City of Renton are in the process of scoping the Masonry Dam study. Elements of a proposed scope are included in Plan recommendation MS 1: Masonry Dam Study.
- Language was added to BWs 12, 21, and 22 stating that the City of Renton agrees to meet water quality and quantity performance objectives that are equivalent to these recommendations. However, Renton may choose to use alternative methods to achieve these objectives, such as regional detention or other techniques identified in BW 19: Urban Stormwater Management Initiative. The City will begin updating their current standards once King County's adopts the new SWM Design Manual.
- BW 16: Basin Steward Program, was expanded to indicate Renton's desire to integrate its stewardship activities with those of the SWM Basin Steward.

King County Department of Development and Environmental Services had a number of comments that will be handled separately, as internal review. Only a few comments resulted in changes to the Plan. These included:

The addition of a specific program to CIP 3108 ("Rainbow Bend Flood Damage Reduction/Floodplain Restoration") to involve Cedar Grove Mobile Home Park owners and tenants in the planning, design, and eventual implementation of this recommendation.

Finally, in keeping with recently stated **Metropolitan King County Council** policy, "Willing Seller" language in the Plan was changed to state that "the Plan proposes that property purchases will be made exclusively on a willing-seller basis." In addition,

questions raised at numerous **public meetings** about the possible consequences of homeowners' refusal to accept County offers to purchase their property were answered in the same areas of the Plan.



**King County
Department of Public Works**

Yesler Building
400 Yesler Way, Room 700
Seattle, WA 98104-2637
(206) 296-6500

April 19, 1995

Donald L. Andersen
17837 Southeast 192nd Drive
Renton, WA 98058

Dear Mr. Andersen:

Thank you for your comments of March 21, 1993 on the Draft Cedar River Basin Plan and Draft Environmental Impact Statement (DEIS). I understand and agree with your concerns especially regarding the importance of reducing costs and beginning plan implementation as quickly as possible. In this response, I hope it will become apparent that these concerns were also on our mind when the basin plan was developed.

As background information, you should be aware that the importance of early project implementation in the basin led to the Metropolitan King County Council to form the Cedar River Basin Legacy Program in 1994. The Legacy projects will enhance and restore fish habitat in the basin, and begin reversing recent salmon and steelhead declines. Several projects are planned for 1995. One in particular, the Elliott Levee Repair and Habitat Enhancement Project, exemplifies the plan's approach to project implementation. It effectively combines federal flood control funds with the local money from the Legacy to simultaneously reduce flood damage and improve fish habitat.

Projects such as this Elliott Levee work, however, cannot be implemented quickly without substantial support from the local, state, and federal permit agencies. This one project required more than 15 months to resolve its interagency issues. Due to their size and scope, a similar level of effort would also be needed to resolve these issues for many of the basin plan projects. During the development of the Cedar Basin Plan, much of this work was completed so rapid implementation can now occur. Hence, the plan process will enable us to avoid costly delays, so that construction can take place as soon as funding is available.

In the remainder of this response, I will address more specifically each area of concern you raised.

Plan Size and Format: The size and format of the plan is the result of Surface Water Management (SWM) Division's desire to ensure that the reviewing public and agencies clearly understand the purpose and effects of individual recommendations and the body of recommendations as a whole. The plan goals and recommendations are summarized to



enable readers to readily determine the key objectives of the plan, to identify what recommendations affect them and where they are discussed, and to display the proposed priorities. In addition, the state law governing a grant King County received to help prepare the Nonpoint Source Pollution Action Plan has specific requirements for the plan content and process. These include establishing the Cedar Basin Watershed Management Committee (WMC), which is the plan's policy-making body, and a description of how the plan is proposed to be implemented (Chapter 5).

Role of the Cedar River Citizen Advisory Committee: The Cedar River Basin Citizen Advisory Committee (CAC) was appointed by the Watershed Management Committee in 1992 to advise the WMC on plan policy. Due to schedule constraints during the three years of plan development, the CAC often had only limited time to review the numerous technical and policy issues involved in developing the plan. This may have also limited their ability to comment at the meetings you attended. The CAC, however, did have ample opportunity to comment on the preliminary draft plan. Their comments suggested several important changes reflected in the draft basin plan, including the nature and extent of the floodplain buy-out program; criteria for determining priority projects; and the roles of the Basin Steward, the Watershed Council, and the public education program. You may recall that the CAC also helped respond to concerns raised by the Shady Lake Community Council during this process. Other significant contributions of the CAC included their help in drafting the basin plan vision statement (Chapter 2) as well as the plan goals and policies (Appendix A). These two products formed the basis of the plan recommendations.

Floodplain Management Recommendations: The general goal of the floodplain management program is to restore floodplain functions so as to reduce flood damage along the river and improve habitat conditions. The floodplain buy-out program is a critical element of floodplain management, both to prevent loss of life and homes in the most flood-prone portions of the Cedar River and to reduce the County's levee maintenance costs. You are correct in your view that removing one home alone will not significantly improve conditions. However, when the WMC discussed the question of the extent to which a buy-out program should be proposed, they carefully weighed both the costs and results of such a program. The WMC concluded that the buy-out approach was necessary to reduce flood damage to many downstream residential, commercial, and industrial uses, including the Boeing aircraft plant, and to restore salmon and steelhead habitat in the basin. To accomplish this, they recommended removing groups of homes (not single structures) and levees only from areas with the most severe flood hazards to life and property. Other areas of the basin with less hazardous flooding were specifically excluded from the buy-out recommendation to save money.

Aquatic Habitat and Water Quality Recommendations: The basin plan recommendations to improve water quality and aquatic habitat are proposed, in part, because they are required to meet conditions of the state grant supporting the Nonpoint Source Pollution Action Plan. In addition, however, we find it is actually less expensive to address these problems as quickly as possible before more severe damage has occurred and corrective action is either extraordinarily costly or the conditions are beyond repair. We have also learned that we can

save money because aquatic habitat and water quality conditions often improve when flood and erosion problems are addressed, if all these needs have been considered beforehand. This avoids the need to prepare separate plans and projects to resolve these issues at a later date. Hence, the plan addresses the basin's flooding, habitat, and water quality issues in a comprehensive way.

Public Accountability: Among the chief reasons for developing the Cedar River Basin Plan was the need to determine the most critical problems and have a clear set of implementable priority actions so that public resources can be used most efficiently to solve the most important problems. The basin plan has done this first by reducing the list of some 200 significant surface water problems identified in the basin by 75 percent, to the 50 most critical needing attention. This action precluded the need for developing and implementing solutions to 150 more problems. Second, when the recommendations were selected, the WMC evaluated the costs and benefits of alternative approaches, resulting in the recommendation of only the most cost-effective solutions. Finally, the WMC's Core Basin Plan (Chapter 5) further targets 46 of over 80 plan recommendations as the most critical for plan implementation to be successful. Due to these constant efforts to focus on the most critical issues, the SWM Division is now in the best position both to avoid spending millions of dollars in unnecessary or low-priority projects and to use limited funds as efficiently and effectively as possible. Another reason for the plan is that in order to obtain the millions of dollars needed from federal and state agencies to help solve the basin's problems, it is necessary to prepare the type of comprehensive proposal offered by this plan. Also, as mentioned in my introductory comments, the plan process served to resolve several major interagency issues that clear the way for swift project implementation once these funds are available.

In the past, plans have been developed without sufficient support to ensure they were implemented as intended. This has led to unnecessary waste and project delays. Chapter 5 of the basin plan also identifies ways to save money and ensure successful implementation. Parts of the plan rely on public education to prevent problems and reduce the need for more capital projects. Chapter 5 also describes several critical implementation needs to minimize local costs. These include: obtaining outside sources of funding, utilizing volunteers to help offset some project costs, and coordinating the numerous agencies and volunteers into an efficient and effective force. These functions are the responsibility of the Basin Steward and the Cedar Watershed Council. The administrative costs identified include the projected need for the Basin Steward, as well as for staff to seek outside sources of funds, administer regulations, and complete other key implementation tasks over the 10-year plan implementation period.

Since it is expected to take years to implement the plan, we want to know how effectively implementation money is being used and whether changes in plan management are needed. The proposed plan evaluation (discussed in Chapter 5), which includes annual progress reports to the public and decisionmakers, is an essential part of maintaining accountability for public expenditures.

Donald L. Andersen
April 19, 1995
Page 4

In closing, I trust this response makes it clear that we too are deeply concerned about how public money is spent and that the basin plan plays a significant role in achieving this goal.

Thank you again for your interest in these important issues. If you have further questions, please do not hesitate to call Keith Hinman, Basin Planning Program Manager, at 296-8053.

Sincerely,



Paul Tanaka
Director

PT:gmc2

cc: Jim Kramer, Manager, Surface Water Management Division
 ATTN: Keith Hinman, Manager, Basin Planning Program
 Roz Glasser, Project Manager, Cedar River Basin and Nonpoint Pollution
 Action Plan

**King County
Department of Public Works**

Yesler Building
400 Yesler Way, Room 700
Seattle, WA 98104-2637
(206) 296-6500

May 9, 1995

Miles Langdahl
22734 - 228th Avenue Southeast
Maple Valley, WA 98038

Dear Mr. Langdahl:

Thank you for your letter of April 12, 1995 regarding recommendations in the Cedar River Basin Plan and your experience with the permit process for your project. I understand your frustration in seeking project permits, since King County staff is certainly not immune to similar experiences.

Your property is on the left river bank in the reach between Maple Valley and Dorre Don, between River Mile 15.0 and 16.8. What we have learned about this area from developing the basin plan is that the channel has changed course in this reach several times in the past. In 1865, for example, it flowed though the Dorre Don neighborhood across the river from your property. Numerous old channels from prior river migrations still exist on the left bank floodplain. We conclude from this information that the river is likely to migrate back into these old channels again within the next century. Therefore, this reach is now considered to be a "channel migration hazard area," as are a number of other such areas along the Cedar River. For further information on this subject, please refer to Chapter 5.4 of the Cedar River Current and Future Conditions Report, which is available at libraries throughout the basin, or may be purchased by calling the Surface Water Management (SWM) Division at 296-6519.

While channel migration hazard areas are not identified by typical floodplain mapping, they are considered hazardous to people living adjacent to them. Therefore, if you are considering constructing a levee in this circumstance, I would caution that levees are not effective long-term protection against the progressive movement, or migration, of the channel or from flood damage if the river changes course. Further, levees frequently harm fish habitat and contribute to flood damage downstream.

Since levees are considered both ineffective and harmful, the County policy is to use other, more cost-effective and beneficial, flood management approaches. For the same reasons, county, state, and federal agencies will not generally permit levees. In this case, I urge you to seriously consider an alternative approach, such as moving the well, rather than attempting

Miles Langdahl
May 9, 1995
Page 2

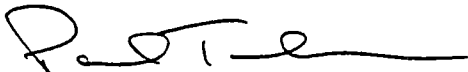
to protect it from what appears to be inevitable property loss. Regrettably, the SWM Division is currently unable to assist you due to the nature of the problem and funding limitations, which require us to give priority to public facilities.

The basin plan, however, does recommend that assistance should be provided in cases such as yours. In recommendation BW2: "Reduce less-hazardous flood damage" (page 4-34) less-hazardous flooding involves channel migration hazard areas and flooding of occupied structures where lives are not threatened. The recommendation would provide technical assistance and financial aid to help homeowners either relocate or floodproof their homes. Floodproofing to protect a domestic water well from inundation would be eligible for the program. However, this and other related recommendations would not be implemented until the King County Council adopts them as part of the basin plan (Council hearings are expected early in 1996) and authorizes funding.

Other basin plan proposals related to your reach of the river include the following recommendations in Chapter 4: Capital Improvement Projects for the Dorre Don neighborhood—basin plan Projects 3101, 3102, and 3103; BW 1: "Remove Qualifying Structures from Hazardous Areas; and MS 6: "Channel Migration Hazard Areas."

Thank you again for your comments. If you have questions about how these above-mentioned plan recommendations relate to you, please call Glenn Evans, Senior Engineer, at 296-8386, or Roz Glasser, Cedar River Basin Plan Project Manager, at 296-8399 if you have other questions.

Sincerely,



Paul Tanaka
Director

PT:gmc21

cc: Brian Derdowski, King County Councilmember
Charles N. Earl, Deputy County Executive
Jim Kramer, Manager, Surface Water Management Division